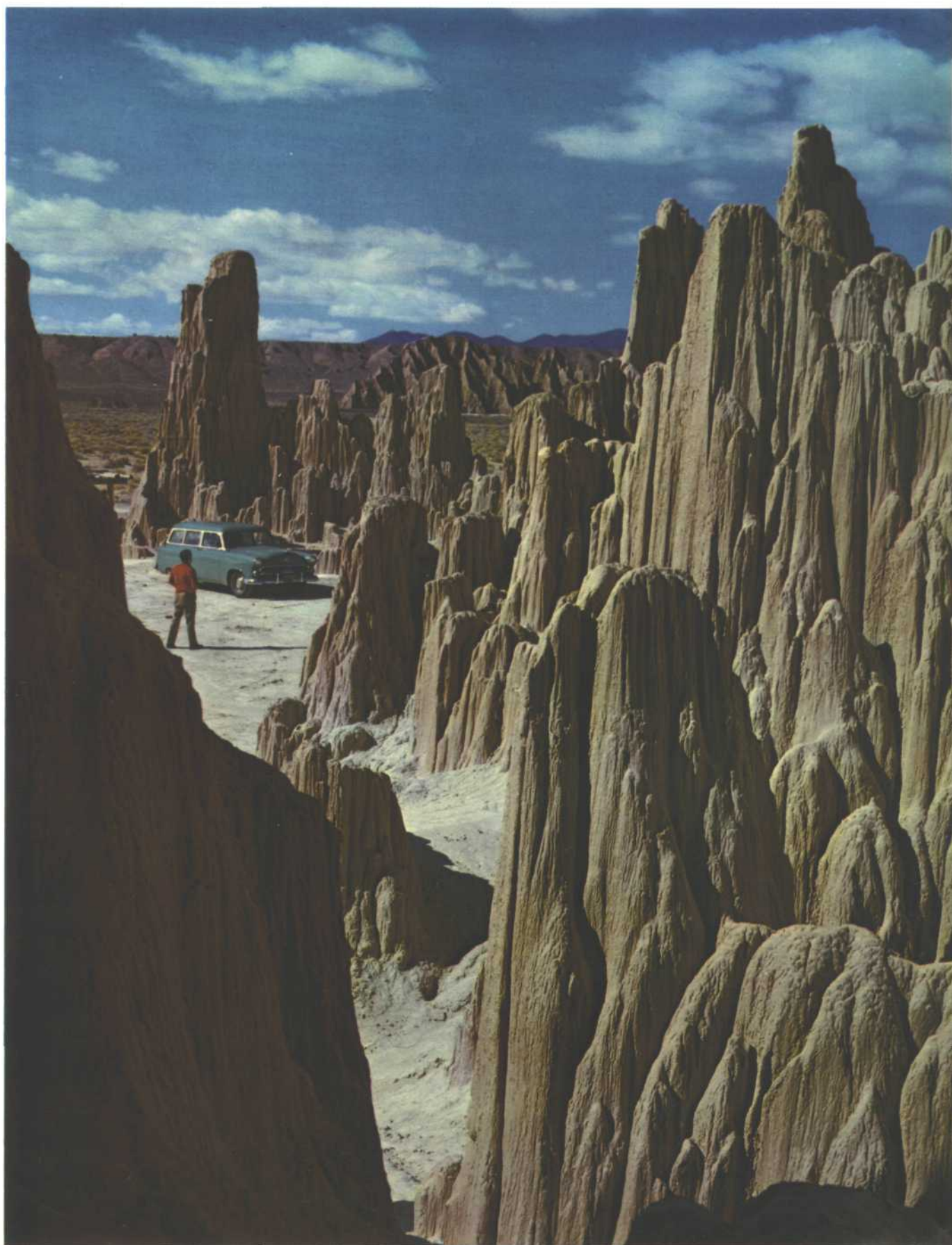


APRIL, 1960
40 cents

Desert

Magazine of the
OUTDOOR SOUTHWEST



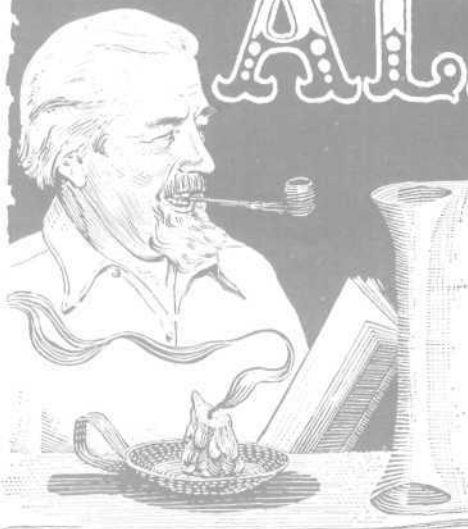
Rough Country

Wind and rain
have carved
fantastic forma-
tions from the
deep beds of
clay at Cathedral
Gorge State Park
in eastern
Nevada

DESERT RAT HARRY OLIVER'S

ALMANAC

1888 • 1999



AFTER 864 FULL-MOONS

On April 4, 1888, Minnesota and the Mid-West was experiencing one of the worst blizzards on record—a violent, blinding snowstorm with a very strong wind and a very great cold—("The Blizzard of '88").

On that day I came into the world. This was 72 years ago. My mother was cold. The doctor was cold. I was cold. My father was scared.

I never did get warm (always more cold than warm) until I came to the desert to live in 1909.

I like the desert. To me, HOT is just another word for COMFORTABLE.



The first part of April the lizards will be out warming their bellies on the rocks. You Easterners should try this . . . you too should soak up some of our sun's wonderful warmth . . . it's a sure cure for whatever you brought along with you . . . (including the kids).

There's always more rocks than lizards



Ever notice how dogs win friends and influence people without reading books about it?

* * *

The Dry Lake Dude of Blythe tells about the old rancher who died and concluded his will with: "... and being of sound mind and body, I spent every damned cent that I had."

* * *

A prospector just south of Ajo had to build a rig to get down into his well because his cat was trapped on a ledge 30 feet underground. He saved the cat and discovered that the ledge showed "good color" (gold). Now he's mining his well, and taking his drinking water from the shaft of his mine.



As a desert enthusiast I believe about four times as much as I can prove and can prove about four times as much as anyone else believes. I never exaggerate—just remember big.

APRIL 1960

MOON-AND-A-HALF OVERTIME

My old friend, Feather-in-the-Wind, who works at odd-jobs here at Old Fort Oliver, is getting his gear ready for his Spring trip to Feather River Canyon where he will pan for gold, right after the spring-freshets.

Looking over my shoulder as I added up his hours, Feather-in-the-Wind said: "Better add a 'moon-and-a-half' overtime for my worrying about all your fool animals."

* * *



Dry Camp Blackie wasted most of the winter. He tried to teach my dog, Whiskers, how to wag his tail up and down instead of sideways.

We know man and dog have lived together two thousand years. My dog Whiskers knows 25 or 30 words I speak — but when he speaks to me I must watch his tail, his ears, his eyes and then guess what he's saying.

Animals are smart — Horses never bet on people.

The wisest owl occasionally hoots at the wrong time.

The records show that the tortoise won only one race with the hare.



First
Quarter
4th



Full Moon
11th



Last
Quarter
18th



New Moon
26th

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Publisher's Notes . . .

Easter season . . . the best time of all to travel about the desert Southwest. Days are warm, as desert days should be. Nights are incomparable . . . mild evenings turning to cool at dawn.

This month's story, starting on page 7, telling of the Yaqui Easter Ceremonial that was transplanted from Mexico to Arizona, describes one of the Southwest's unique religious facets.

No other corner of our nation has contributed the weight of cultural and creative influence that has come out of our own Southwest. This influence is manifested through art forms, literature, religion, architecture and ecology. The Southwest has been a mixing bowl of Indian, Spanish, and Neo-American ideas.

This month's *Desert* is devoted to this theme.

The span of our Table of Contents covers centuries—from the medieval rites of the Yaquis and the strange Penitente Holy Week Ceremonies to a rockhound field trip in search of Chrysocolla.

Several times a year we urge our readers to visit *Desert Magazine's* Art Gallery and Craft Shop. The gallery, largest in America devoted solely to Southwest canvases, is open seven days a week. There is no charge and no obligation.

At present a special showing of paintings by the Taos artist, Charles Reynolds, is on display. Starting April 5 the popular Brownell McGrew puts up several paintings depicting scenes and faces from Navajoland. Anyone who has enjoyed Monument Valley and the reservation country of northern Arizona will find memories revived by McGrew's newest works.

Those who traveled desert roads in Southern California last month were treated to a lovelier-than-average wildflower display. And we hear that Arizona will have an outstanding floral array this spring.

And, as a result, dozens of photographers will submit color transparencies to us. Frankly, there's nothing we enjoy more. Though we accept only two or three flower photographs a year, we are at our happiest viewing and reviewing the picture parade.

CHUCK SHELTON
Publisher



Desert — magazine of the OUTDOOR SOUTHWEST

Volume 23

APRIL, 1960

Number 4

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CHARLES E. SHELTON . . . Publisher
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BOOKS of the SOUTHWEST

BIOGRAPHY OF A MORMON PIONEER IN ARIZONA

The name Udall is prominent in Arizona and in the Mormon Church. The late David King Udall, patriarch of the family, spent many months prior to his death in 1938 compiling a "history" of his life. Arizona Silhouettes of Tucson recently brought out the biography under the title, *Arizona Pioneer Mormon*. Primarily intended for the many members of his family, Udall's story, nevertheless, has wide appeal, especially to those who are interested in the still-young Mormon Church.

A few weeks after his marriage, Udall was called to serve a mission in England which lasted over two years. After his return to Utah, the Church summoned him again — this time to lead the struggling Mormon colony trying to take root in the arid land near the head of the Little Colorado River in far-eastern Arizona. The neat farms and ordered way of life in this large sector of the Southwest are monuments to Udall's leadership.

Here is insight into the spirit of the movement that is still working hard to make "the wilderness and the solitary place . . . blossom as the rose."

304 pages; index; appendix; many illustrations; \$10.

AN APACHE INDIAN WRITES ABOUT HIS LIFE

The Apache Indians of the '80s were a "mixed-up" race. They were jealous of each other, and some of the tribesmen made careers of being troublemakers. The Apache never forgot or forgave a wrong. The love of strong drink made them fools; they practiced moderation in nothing. The men were lazy; few had foresight to realize that the Southwest was in the throes of change; they could not adapt.

The above indictment comes from Jason Betzinez — an Apache Indian, and not a new-generation university-trained Apache, either. Betzinez was born in 1860. His book, *I Fought with Geronimo*, was published last year in the author's 99th year.

In many ways this is a remarkable book.

"OVERLOOKED FORTUNES"

IN THE RARER MINERALS

Here are a few of the 300 or more rarer minerals and gemstones you may be overlooking while mining, prospecting or gem hunting. Uranium, vanadium, columbium, tantalum, tungsten, nickel, cobalt, selenium, germanium, bismuth, platinum, iridium, beryllium, golden beryl, emeralds, etc. Some minerals worth \$1 to \$2 a pound, others \$25 to \$100 an ounce; some beryllium gems worth a fortune! If looking for gems, get out of the agate class into the big money; an emerald the size of your thumb may be worth \$500 to \$5000 or more! Now you can learn how to find, identify, and cash in on them. New simple system. Send for free copy "Overlooked Fortunes"—it may lead to knowledge which may make you rich! A postcard will do.

DUKE'S RESEARCH LABORATORY
Box 666—Dept. B
TRUTH OR CONSEQUENCES, NEW MEXICO

It gives us a rare picture of the Apaches from the inside looking out. The reader gains a clearer understanding of the intricate clan system under which these Indians operated. The roots of the Apache Wars are revealed in new light. And the book is far more than its commercially-inspired title would suggest, although the bulk of the story does concern the warpath days. The author does not glorify mayhem, nor does he side-step it—it is too much a part of the frightful Apache story. An example:

"... The Mexicans tried all afternoon to dislodge the Indians. After dark they set fire to the grass hoping to burn the Indians out. The latter were now in serious condition. They were surrounded by the prairie fire, the circle of it drawing closer. The warriors asked the consent of the few women who were there to let them choke the small children so that they wouldn't give away their movements by crying. Then they all crawled through the fire and got away without being seen."

After serving his kinsman, Geronimo, on the warpath, Betzinez attended the Carlisle Indian school. Later he became a Christian and took up farming.

Published by the Stackpole Company; 214 pages; index; many halftone photos; maps; \$4.95.

HOW TO CUT AND POLISH GEMSTONES

A handsome new book on the popular subject of turning rough stones into beautiful gems is now available to lapidary fans. The well-qualified authors are Leland Quick, editor-publisher of *The Lapidary Journal*, and Hugh Leiper, former editor of *The Mineral Hobbyist*.

The Quick-Leiper book is called, *Gemcraft*, and in it the entire lapidary spectrum is presented—from where and how to collect gemstone material, to slabbing, cutting, polishing and even engraving gems.

Big pictures and plenty of them highlight the book. There are also many good drawings.

Published by Chilton Co., Philadelphia; 181 pages; special tables; bibliography; \$7.50.

WHEN AN ENGLISH GIRL SETTLES ON A COW RANCH

Stranger to the Desert is a new book relating some of the funny things that happened to Dorothy Ross after she left her rich English surroundings for life among the cattle and characters of New Mexico. The ensuing conflict is a "natural" for comedy, but the author strains a little too much for some of her laughs, and the Southwestern reader is apt to feel that she spends too many words describing her genteel English background. The cowboys call this "putting on the dog."

But, it's all in fun—and parts of the book are good fun. Published by Wilfred Funk, Inc., New York; 249 pages; \$3.95.

Books reviewed on this page can be purchased by mail from Desert Magazine Book Store, Palm Desert, California. Please add 15c for postage and handling per book. California residents also add 4% sales tax. Write for free book catalog.

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Direct line merchandising, seller to buyer,
in the Trading Post (see pages 34, 35 and 36)

LETTERS

... FROM OUR READERS ...

Yes! . . .

To the Editor: Congratulations on the renewed life you have instilled into *Desert Magazine* and the attractive and interesting lay-outs you have created.

It is with pleasure that I enclose a check to renew my subscription for two years. Seven months ago I would not have renewed, as *Desert Magazine* was deteriorating into a rockhound's journal. I have nothing against such journals (in fact, I'm the editor of the San Diego Mineral and Gem Society's Bulletin), but *Desert Magazine* is a publication that should include all facets of Southwestern lore. Thank you for rejuvenating it.

EVELYN L. CARTER
San Diego, Calif.

dehydration on a desert outing, the great suffering of the Utah family whose car broke down on a "short" sight-seeing trip.

Isn't life worth \$10 and a little extra effort? My thought is that no car should go prowling around the desert without an extra tire and tools, the gas and oil checked before starting off, a couple of gallon thermos jugs of water permanently stored in the trunk along with a few old blankets or sleeping rolls, a yellow sheet (easy to spot from the air by rescue planes), a few cans of Army rations. . . .

Nothing expensive in this list, but enough here to save a life in case mishap strikes in the wilderness. Only work involved is periodically changing the water to keep this emergency supply fresh.

FLORENCE MATTSON
Tucson

No! . . .

To the Editor: We liked *Desert Magazine* better the way it was. Your changes are no improvement. Too many big pictures taking up room and not enough of "as it was," meaning more desert information wanted.

DIXIE LONG
Yuma, Ariz.

Safety on the Desert . . .

To the Editor: As a long-time desert wanderer, I am distressed to read about back-country accidents—the baby who died of

The Wrong Source . . .

To the Editor: As a student and great admirer of J. Ross Browne I was puzzled by the caption on the Browne woodcut on page 11 of the February issue of *Desert Magazine* ("Transportation on the Desert"). The author, Mary Hill, is mistaken about the source of this drawing.

It originally appeared in Harper's New Monthly Magazine, Volume 31, September 1865, page 414, in a series entitled, "A Trip to Bodie Bluff and the Dead Sea of the West"—this was the "second paper." In no way is it connected with a series he

did entitled, "A Tour through Arizona"—which appeared in Volumes 29 and 30 of Harper's Magazine.

It did however appear in book form in 1869, in "The Apache Country Tour Through Arizona and Sonora" by J. Ross Browne and published by Harper & Brothers, N. Y., on page 432, under a section entitled, "The Dead Sea of the West"—again with no connection with his Arizona tour.

After reprinting two of J. Ross Browne's works—*The Coast Rangers* and *A Peep at Washoe and Washoe Revisited*—I compliment Miss Hill on selecting two of Browne's sketches, for he was a great, but sadly neglected, Western pioneer. Because of this nearly century of neglect, the handful of Browne students are encountering difficulties in compiling even a partial bibliography of his many works.

HORACE PARKER
Paisano Press
Balboa Island, Calif.

A Landmark Disappears . . .

To the Editor: The news I am about to impart is going to be saddening to many lovers of desert lore.

I have just returned from a trip which included a visit to Keeler (located on the "shore" of Owens Lake bed on the Mojave Desert.) I was astounded, flabbergasted and greatly disgruntled to find that the tram terminal building and the tram, which at one time carried ore down to Keeler from the Cerro Gordo Mines, have disappeared!

The sturdy terminal building was not merely torn down; it has vanished. The only thing that remains is the pair of huge counterweight "buckets." Surely the space which the building occupied is not needed

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for some other purpose in this pitiful little semi-ghost town. It appears obvious that this was a salvage operation. I have no right to challenge the owner's action, but I am indeed sorry that the old landmark had to go.

CLAYTON I. KANAGY
Los Angeles

Pleased with Award . . .

To the Editor: I was pleased that my book, *Hole-in-the-Rock*, was selected to receive *Desert Magazine's* 1959 literary award for Southwest History.

I consider this the greatest honor and recognition which I could have received for my work. Please accept my sincere thanks and appreciation.

DAVID E. MILLER
Professor of History
University of Utah
Salt Lake City

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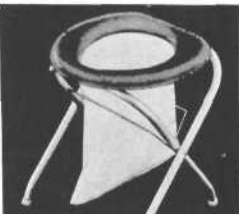
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A Wonderful Guy! . . .

To the Editor: One look at his ample belly tells me that my friend for nearly 50 years, cowman Rawley Duntley (*Desert*, Feb. '60), is in good health and still living high off the hog. What a wonderful guy! Since the passing of Death Valley Scotty, various outdoor groups have been searching for a new "most typical desert man." I nominate Rawley.

In Evelyn Young's good story on Rawley, she states that our valley's financial troubles during the Depression were due to the gold mines shutting down. This is only partly true. Actually, the collapse of alfalfa and livestock prices dealt the knockout blow to the Antelope Valley. A ton of baled hay sold for \$8—today the price is \$38. Round steak was 18c a pound—now you pay 75c.

To add to our troubles there came refugees from the Dust Bowl—many of them completely destitute. We asked for no outside help—the small admission fees charged at softball and basketball games were used to get many of these people over the hump.

Through it all good Old Rawley was always willing to do more than his share. As long as there are men like Rawley Duntley, it's still a wonderful world.

FRANK B. RUTLEDGE
San Clemente, Calif.

To the Editor: Evelyn Young's article on Rawley Duntley was very much appreciated and enjoyed. The author should be congratulated on her fine handling of this story.

Duntley has done many nice things for the people of our area, and we all think very highly of him.

There is so much history in our Antelope Valley area that it is nice to have articles in your magazine dealing with this corner of the desert. Keep up the good work.

GLEN A. SETTLE, president
Kern-Antelope Valley Historical
Society, Rosamond, Calif.

To the Editor: The story "Mojave Barbecue King" gives an exact description of the Spanish Pit Roast. So the title of the story should have been: "Mojave King of the Pit Roast." A barbecue is cooked in the open over live coals—not under the ground.

SAMUEL CURRIER
Greenfield, Calif.

The Raid on Columbus . . .

To the Editor: The story of Pancho Villa's widow by W. Thetford LeViness in the February issue was good, but the author slipped up on one detail. He wrote that Villa was not directly involved in the Mexican attack on the border town of Columbus.

Villa not only was involved, he was wounded twice—in the head and hip. He sent Bill Margo and two colonels to El Paso for an American doctor. The Villa men walked into Dr. Brown's office and the officers drew their guns. Bill told the colonels to put their weapons away. "He'll go along without that," he said.

They took Dr. Brown to Three Rivers in the Sierra Madre Mountains, and he remained there with Villa three months. General Cedileo Parrish's wife also helped nurse Villa back to health.

In 1945 in company with a group of Americans and Mexicans who had served under Villa, I visited the Parrish Ranch high in the mountains above the little rail-town of Chica. To reach this place we had to drive 24 miles in low gear. Mrs.

Parrish showed me the crutches Villa had used during his convalescence.

Margo was in charge of the 1945 reunion. After being feted at the General's home, we took to the trail with horses and pack animals. Next day we were entertained at the home of the General's eldest son; on the third day we stopped at his son Rafael's home; and on the fourth day we rode out of the Valley to Villa's old camp.

No trails—we simply rode over mountains and down canyons. It was the most wonderful trip I ever made. We ate trout, turkey and venison at every meal.

My buddy on this outing was Mike Eureka, General Eureka's son. Mike was always telling me that his father was a "mean man." One night I asked Margo what young Eureka was talking about. Margo explained. Villa often threatened to send soldiers who did not toe the line to General Eureka whose disciplinary methods included cutting off ears and hands. Then I remembered a Mexican from Juarez who used to make my belts. This man had one hand—the work of General Eureka.

Margo told me many interesting stories about Villa. I wrote most of them down, but the manuscript is still in my trunk.

JIM DYE
Apopka, Florida

Pete Osdick Is Ill . . .

To the Editor: *Desert Magazine* readers will be interested to know that Pete Osdick (*Desert*, June '59) old-timer of Red Mountain, California, is ill in the San Bernardino County Hospital. He is able to see visitors most of the time, but is very thin and weak.

ARDA HAENSZEL
San Bernardino, Calif.

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CHARLES W. HERBERT

ARMY OF EVIL — The "Pilates" (in black dress) and the masked "Chapayekas" prepare to march on the church (background).

Each Spring members of the Yaqui Indian Colony in Tucson re-enact a spirited Medieval-rooted drama — a Passion Play in which the United Forces of Good route the Army of Evil . . .

EVERY EASTER for the past three centuries the Yaqui Indians have re-enacted a complex and primitive Passion Play. It has been little changed since the early Yaqis of Mexico accepted the Christian faith and combined their own rituals with the Catholic mass and medieval miracle plays as taught to them by the Jesuits.

We need not leave our own country to see this drama, for the Yaqis who beginning in 1882 migrated to southern Arizona as political refugees brought the Play with them. Today the nucleus of this group in America is found in Pascua Village, a 15-acre tract entirely surrounded by the city of Tucson. About 700 Yaqui Indians live there. Their drama of the Crucifixion and Resurrection along with the triumph of Good over Evil, interwoven with the Catholic service for Lent and Holy Week, is a tightly organized community

enterprise. It expresses the deep religious motives of its members, and demands of them hard work and sacrifice.

Fariseos (Pharisees) and Caballeros (Horsemen) are the two societies in charge of the ceremonies. Members of the combined group are under vow to Jesus to take the part of the wicked ones who crucified Him. Leaders of the Fariseos are the "Pilates;" their masked soldiers are known as "Chapayekas." Together they harass and bedevil the forces of good, search for Jesus until they find Him in the Garden of Gethsemane, crucify Him, and try to destroy the church. Defeated, they turn on the effigy of their "saint," Judas, burn him at the stake, then rush into the church to rededicate themselves to Christ. While performing evil deeds,

CONTINUED

The Forces of Good...

(Continued)

these men carry rosaries, wear crosses and pray for forgiveness for assuming the appearance of evil while fulfilling their vows.

The church personnel, including the Maestros (leaders of the church group), Sacrisants (Maestro aids), choirs and men, women and children's groups, have specific parts in this purely Yaqui interpretation of the Passion. Also on the side of the church are the Deer Dancer, and the Pascola ("Old Men of the Fiesta") and Matachin ("Soldiers of the Virgin") dance groups. The dancers not only amuse and entertain the visitors, but fight against the forces of evil. On Holy Saturday, the combined forces of Good—with their potent ammunition of prayers, dances, songs, music, leaves and flowers — successfully defend the church and are victorious over the attacking Fariseo Army.

On Easter morning the Resurrection is celebrated



PASCOLA DANCERS stand guard over canvas covered with leaves and flowers (right foreground)—"ammunition" that will be used to repel the Forces of Evil.



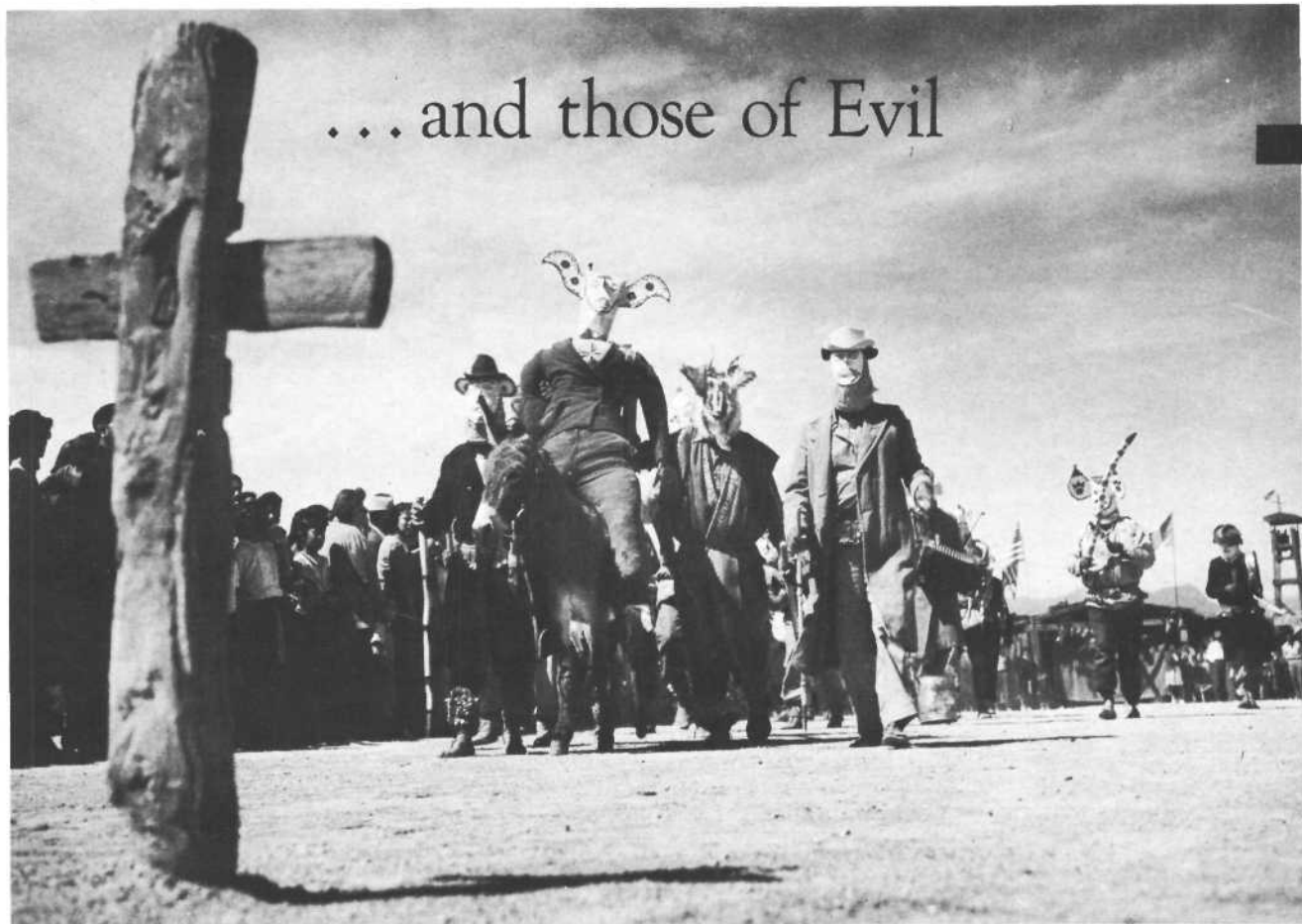
DEER DANCER (left) has a strenuous role in the Play, for he must dance for anyone who so requests. After the victory over the Fariseo Army, he dances all afternoon and night.



MATACHIN DANCER is under vow to the Blessed Virgin.

These dancers are called "Soldiers of the Virgin," and wear head-dresses of bright crepe paper. The Matachines do not appear in the ceremonies until the eve of Palm Sunday. Then they guard the church, and dance for an hour at a time—all through the long night.

... and those of Evil



"SAINT" JUDAS—On the morning of Holy Saturday, the Chapayekas enter with an effigy of Judas riding a burro. In mockery they parade around the Way of the Cross in the wrong direction.

DEVOTION TO JUDAS—Since the Chapayekas are not allowed to talk while wearing their masks, they show their devotion to Judas in pantomime—embracing him, saluting him, dancing around him and bowing before him. In the meantime they prepare a pyre by hanging sacks of inflammables on the back of the supporting stick, and placing cans of inflammables at Judas' feet.



together by the weary members of the various groups. About noon they form a large circle at the east-end of the plaza for the closing "thank you" ceremony. Standing in the center, the Head Maestro speaks of the meaning of each role that has been played, and prays for a special pardon for those who assumed the evil roles. Then he gives an accounting of all the money received and spent. The Fariseos and Caballeros then form a line and march around the circle three times

shaking hands, thanking the others for their conscientious participation, and saying farewell.

That their Passion Play has not degenerated into a tawdry commercial spectacle is proof of the sincerity and sturdy character of these Yaquis. But through the years, pressure from crowds of onlookers has become

CONTINUED

The Evil Fariseos Are Routed (continued) . . .



THE FARISEOS

ATTACK—The church bell rings and the maestros start singing the "Gloria."

The Fariseos race to the church, but are repulsed (above) by the Pascolas and others in the Church group who pelt them with flowers, confetti and dried leaves.

The Fariseos retreat and reform rank.

Then they attack a second time, and a third.

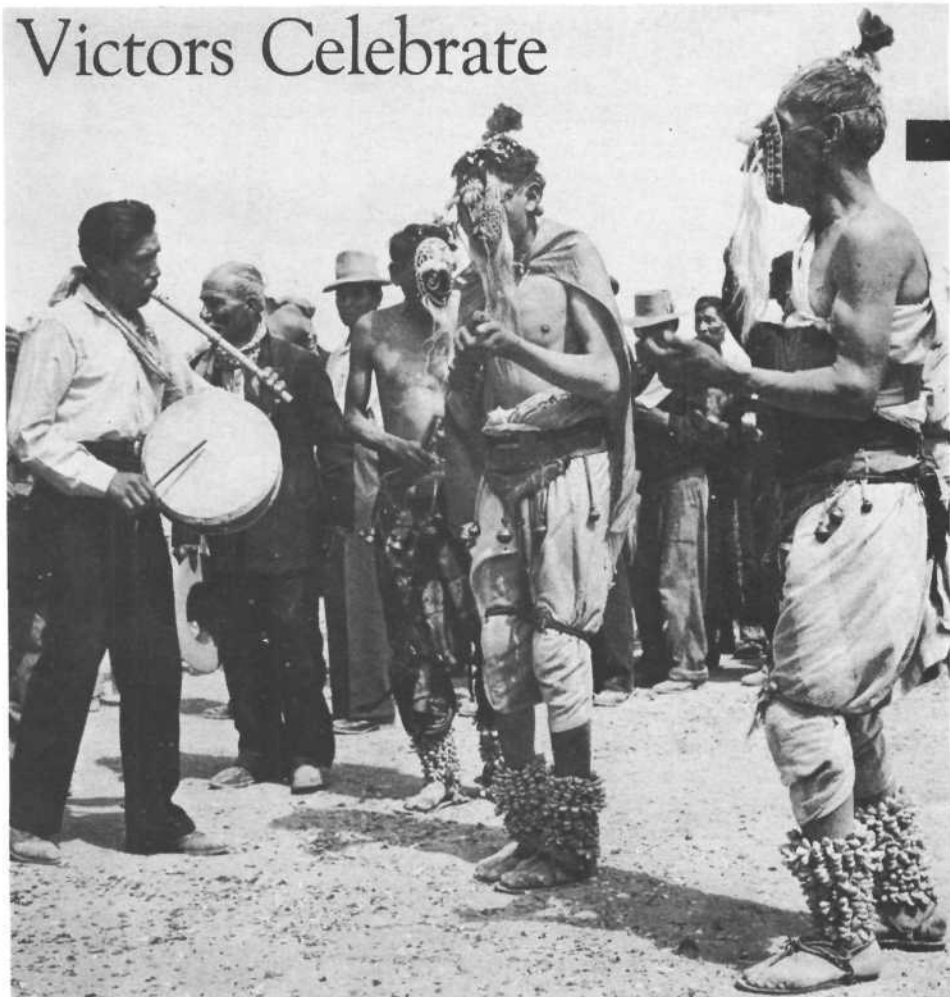
Defeated by the Forces of Good, the Fariseos rush to the Judas pyre, throw their masks, swords and daggers at its feet and set it afire (right).

As Judas burns, the Evil Ones are rushed into the church.



... and the Victors Celebrate

PASCOLAS, wearing their masks as they must when dancing to the music of drum and flute, dance in front of the church in celebration of the victory over Evil.



"SOLDIERS OF THE VIRGIN" kneel in front of the church and give thanks to the Virgin Mary, then they jump up and go into their ceremonial dance to celebrate their triumph.

so great that the Indians have had to seek assistance in order to maintain the play in its original form for their own religious expression. Help came from the local Chamber of Commerce in the form of donations and an advisory committee to help the Yaquis work out their secular problems.

Visitors are welcome if they come in a spirit of

reverence. No admittance or parking fees are charged, and spectators may make contributions only if they wish to do so.

The photographs accompanying this article were made with the permission and complete cooperation of the Pascua officials. This permission is rarely given, and visitors cannot make pictures without it.—END

CAMELS . . .

By WILLIAM E. WARNE

. . . ships of the desert

. . . third in a series of articles by Mr. Warne based on his observations in Iran during his work there as Point 4 Administrator. "The Ghanat" (horizontal well) appeared in the February issue, "Natural Ice Factories" in March.

"THE CAMEL," a wag once said, "is an animal that might have been put together by a committee."

In the deserts of the Middle East the ungainly appearance and the notoriously bad disposition of the camel are ignored. The great beast is seen with a more poetic eye. Camels there are "the ships of the desert"—they have opened overland trade routes to distant and mysterious lands. Caravans have bound countries and people together in ways that have had strong influences in history.

The caravan routes from the Mediterranean to India and from the Persian Gulf to China, east of the Himalayas and west of the Caspian Sea, made ancient Persia the crossroads of the world. The cultural interchange along these routes decorated the Blue Mosque in Isfahan with a Chinese flourish, and placed the Taj Mahal in Indian where Islam's greatest architectural triumph embellishes foreign soil. This interchange scattered Greek coins in bazaars in towns whose rubble even now sometimes gives them up intact.

The horse teamed up with man in prehistoric times, but the camel first appeared as a domesticated animal relatively recently. When he did arrive, the way of life in the Middle East was changed. While it was the horse that made the Persian armies formidable, it was the camel, according to Hejrodotus, that spelled the difference between success and failure when Cyrus defeated Croesus, the Lydian, thus swinging eastward for the first time the pendulum of power in the conflict between East and West.

Marco Polo followed to Cathay the caravan route through Persia. Silks, spices, jewels and precious metals were moving over the caravan routes, from China to wealthy cities of Europe, centuries before the Portuguese learned to navigate and started their earth-shaking chain

of explorations. These voyages led to the disappointing discovery by Columbus of a land barrier between Europe and China to the west.

In Asia and Africa, "modern times" have far from eliminated the camel as a carrier, although his "day" may be passing. In Iran one-third of all goods that move in commerce more than 20 miles are carried by the camel. The railroad, truck and bus cannot follow him over the sand trails to the remote villages. In addition to his ability to go for long periods without water, a camel requires only a feeding of straw and to be grazed now and then on seemingly barren hillsides. These beasts can carry great loads 40 miles a day.

Southwestern United States missed most of the romance that the camel might have brought to the American deserts. The great age of the camel was passing before the white man came to the Southwest, and the railroad and automobile soon left the zoo as the only logical place for this beast in all this region. Yet at least four attempts were made to establish the camel here. The most colorful and dramatic left the Hi Jolly marker near Quartzsite, Arizona. The plaque there reads: "The last camp of Hi Jolly, born somewhere in Syria, about 1828, died at Quartzsite, December 16, 1903. Came to this country February 10, 1856. Camel driver, packer, scout. Over thirty years a faithful aid to the U. S. Government."

Hi Jolly was originally Hadji Ali, and the man who bore that name was the most colorful among the group of camel drivers brought along by Major Henry C. Wayne, U.S.A., and Lieutenant David D. Porter, U.S.N., aboard the stores ship "Supply," to tend 33 camels on their voyage from Egypt to Texas. The idea behind this expedition, which was sponsored by Secretary of War Jefferson Davis, was to form an Army Camel Transport Corps. The camels



Camel Caravan in Iran.
In background
are the snow-clad
Elburz Mountains.

had been obtained in Smyrna, Alexandria, Tunis and Constantinople.

Once the camels had been delivered and acclimated, Major Wayne turned them over to Lieutenant Edward F. Beale, former Superintendent of Indian Affairs in California, who had been commissioned to open a wagon road from Fort Defiance to Southern California. It is interesting to note in Major Wayne's meticulous reports to the Secretary of War that he had packed a mature male camel with a load of 1256 pounds.

Despite the excitement that surrounded the passing of Beale's camel caravan all along the route from San Antonio where the train departed June 25, 1857, to the Colorado River where it arrived October 14 and on to Los Angeles, the venture failed.

In 1863 the Army ordered the camels sold, and they were auctioned and soon lost sight of, excepting some that Lieutenant Beale, later General Beale of the Rancho "El Tejon" near Bakersfield, kept on his place. It is recorded that he made a striking figure "in a sulky behind a tandem of camels."

It was the order of President Lincoln in 1862 to start work on a transcontinental railroad that sealed the doom of the camel caravans. But, the Army's experience with camels did not go unnoticed. A merchant in San Francisco, Otto Eschp, imported three shipments of camels from China in 1860 and 1861. These and the remnants of the Army group were reported seen at various mining camps and on expeditions and at work as far north as British Columbia. Some of these animals found their way into zoos, and as late as 1934 newspapers carried reports of the death of the last of them in a zoo in Los Angeles.

Inevitably, legends grew about the camels. More than 40 years ago, around the campfires on the East Mesa in Imperial County, California, we children used to be regaled with stories of the camels that had been seen. Borrego Valley was a favorite place for having seen a camel, as were several isolated palm oases in northern Baja California, even whose names are now forgotten. The Chocolate Mountains, then somehow more mysterious and romantic than now, also were a fitting locale.

Old Mr. Benton had found one there, he said, after hearing a camel bell in the night. Old Mr. Benton certainly was the most authentic prospector of that place and during that day. He spent most of his time following his burro in remote canyons looking for gold and finding it—well, almost finding it. But even the children sensed that sometimes old Mr. Benton embellished a story. Most of the adults were as skeptical as their perceptions of the feelings of old Mr. Benton would permit.

"He thought he heard a camel bell," my mother explained afterward, "and then it was easy to see a camel in the moonlight out there in that shadowy canyon."

"Humpf!" was all that my father would say.

When old Mr. Benton came by a day or two later, one of the ranch hands climbed to the first limb of a cottonwood tree. He shaded his eyes and peered out toward the desert. "Yeah, here they come!" the lout yelled. "Six of 'em coming over the Mesa, and Omar's driving 'em too!"

Old Mr. Benton walked on, looking straight ahead. I felt so embarrassed that I followed him to his camp, though I had set out with a different plan in mind. I sat

on my heels on the ditch bank while old Mr. Benton made a fire and put the coffee can on to boil. It was a long time before he seemed to notice me.

Even at that time in our community, the story of Hi Jolly was not unknown. Generally, the people did not believe there were any camels left-over from the Beale attempt, however, and they considered anyone who did think so a hopeless romantic. Much later the story of wild camels was periodically revived, but there has not been an authenticated instance of the appearance of a camel in our desert in many, many years.

It is good to think, in a quiet hour, that somewhere north of Kerman bound for Mashed, a caravan swings along through the Iranian desert, bearing a bundle of rugs, some sacks of sugar, tinned tea, and perhaps a Hadji—a pilgrim—returning from Mecca, his turban nodding in the sun; the brass water jug dangling from his wrist clanging now and then against the harness and waking the old man from his drowse. Perhaps this too is shortly to pass, for a railroad recently has been completed to Mashed. It connects with Khoramshar at the head of the Persian Gulf making for a much faster journey to Mecca. The railroad is already having difficulty meeting the competition of planes that fly directly to Mecca from Mashed, Teheran and Isfahan.

There is no improvement without change, say we, in justification of all that we have wrought. Ah, comes a question faint as conscience: but does change always improve? When it is easy to get to Mecca, will a pilgrimage be so sure a guarantee of Paradise? It has always been understood that those were most certain of reward who, tried beyond endurance, left their bones by the caravan-saries in the desert beyond the gates of the Holy City.—END



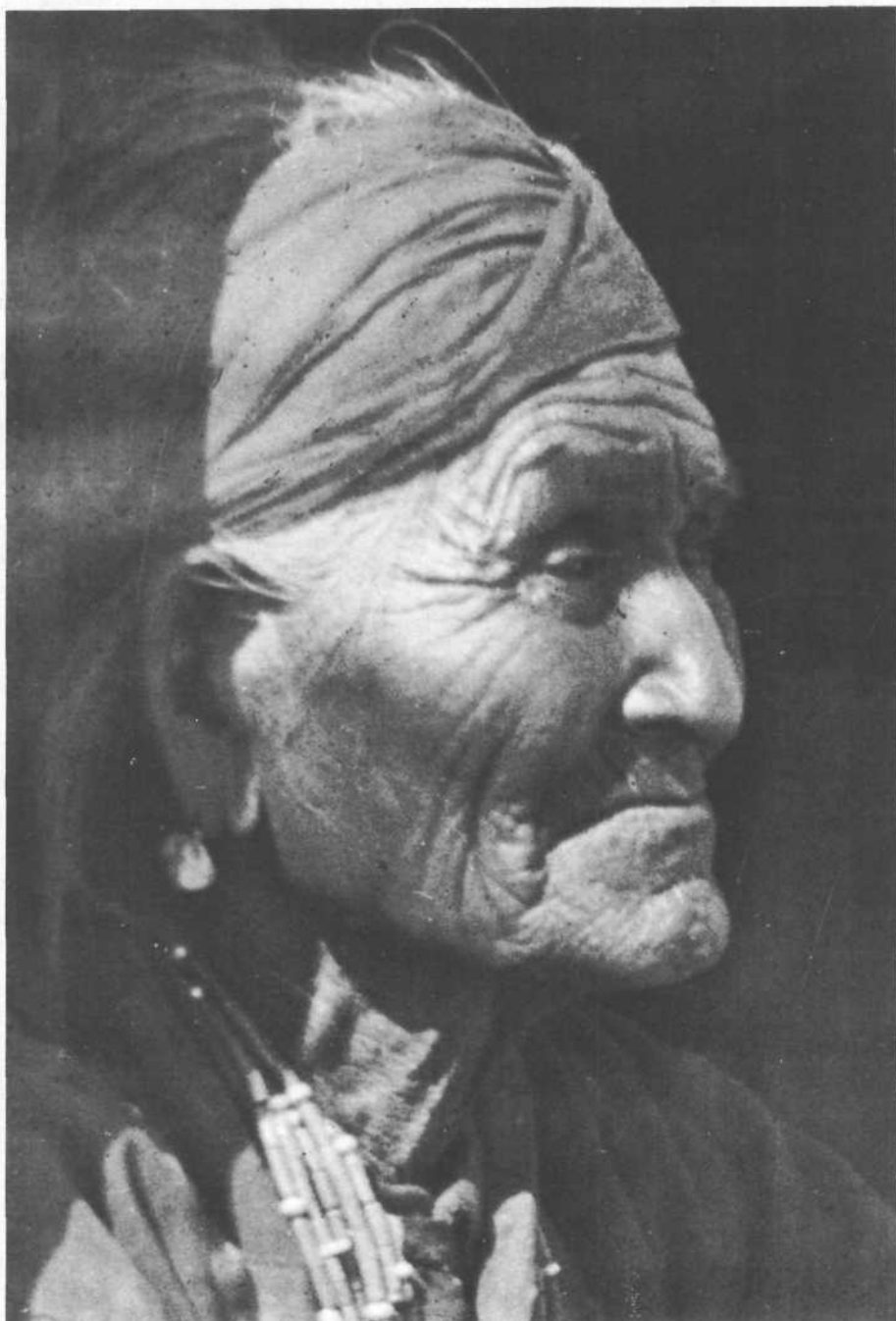
Camel Driver in traditional coat. Sleeves are ornamental.



BECAUSE I WORK

By Laura Adams Armer

The second in a series of previously unpublished articles by one of America's most distinguished—and sensitive—authorities on the culture of the Navajos, based on her 1923-31 experiences in Arizona. Mrs. Armer's first story, "Navajoland in 1923," appeared in the March Desert Magazine.



"HIS FACE SHOWED THE SECURITY OF ESTABLISHED BELIEF"

*For my sake bluebird approaches.
For my sake bluebird approaches.
The rain sprinkles.
The corn comes up.
The rain sprinkles.
The rain descends.*

The rain had been descending for many weeks, not a gentle rain called by the bluebird. Unprecedented storms throughout the winter had caused the Little Colorado River to flood. Armed with paint, brushes, canvas and cameras, I arrived at Sunrise Post on a rainy day in February, 1924. Bridge approaches were down. A veritable lake stretched for miles over what had been sagebrush-dotted sand. The desert of water was more desolate than the former dry land, what with a few leafless cottonwoods rising gray and deathlike out of the lake.

The tales that Navajos brought were sad enough. Snakes and small rodents swimming to high ground infested the hogans. Strong men fighting the water fell ill of pneumonia. Old Mary's young husband worked all night trying to save the sheep which were Mary's. In two days he died of "no lungs."

The trader grew gloomy and gloomier. He no longer told merry tales of adventure. Only Roy, the young interpreter and helper at the Post, kept the courage of a son of pioneers. As the water receded during the week a gang of Navajos worked on the bridge approaches. Roy watched the work and reported progress. One day when the storm was over and brilliant sunlight shone on the muddy water, Roy saw an automobile drive over the approach which was finished. He knew that the opposite approach across the river was still washed out.

"Stop that car or it will be wrecked!" he shouted to a Navajo workman.

THE TURQUOISE

The sky-blue stones dangling from her ears symbolized the beauty of the trail she had come to Arizona to follow...the trail that led backward into the guarded past of these nomadic people...the trail some of the tribesmen resented her taking, while others gave kindly encouragement



"It is a white man," the Indian replied. "Let the white man die in the muddy water! Let all those white men die!"

Roy warned the driver, then returned to tell me what had happened. I reassured him by insisting that the feeling of enmity was individual. The Indians had been mistreated by unscrupulous whites, but as a whole they responded to decent treatment. We were talking in the store. I was wearing the blue turquoise earrings. Three Navajos came in to trade. One looked like a "Bad Injun." He scowled when he noticed the turquoise hanging from my ears. Making a motion toward me as if he intended to tear the gems away, he said to Roy:

"The white woman must not wear the blue stones. They are Navajo."

I continued to wear them, feeling their magic. They were as alluring to me as the song of Dawn Boy, wandering with beauty all around him. They were indispensable there at the Trading Post with muddy water all around. Their blue, more brilliant than a summer sky, helped me to forget the vengeful attitude of the two disgruntled Indians.

In a week's time the bridges over the Little Colorado River were passable. My host planned a Sunday trip to Winslow to get certain supplies for his housekeeping. I sat down near the fireplace to cogitate upon my attempt to find the "trail of beauty" that had brought me here. In the late afternoon the trader arrived. He was in the best of spirits. The gloom of the last weeks was gone. He added a leaf to the dining table and spread a clean white sheet upon it. He apologized for not having a tablecloth, saying:

"The wifie took all the linen to Los Angeles with her. Now, we're going to have a real dinner. I'm a first-rate salad maker. Just give me a head of

lettuce, some olive oil and lemons, a can of lobster, also ditto of *petit pois*, and I ask no more."

With warm hospitality he brought forth the precious imported articles he had bought in Winslow. He made a salad of these delicacies so difficult to obtain in the wilderness. He opened a can of chicken and even provided a good cake. It was a feast. We ate happily. After dinner we sat by the fireplace and conversed. I went on with my watercolor copies of the designs in the rugs made by the Navajo women. Logs in the fireplace glowed genially. Added to the acrid smell of cottonwood smoke, a strong muttoney flavor emanated from a group of four or five Indians conversing with Roy. They were a piratical-looking lot, in

vari-colored velveteen jackets and turquoise jewelry. One wore a fur hat in the style of an early trapper. Another's black hair was encircled by a red bandana. A third topped his lithe six feet with an added foot of peaked Stetson felt.

The Indians had been lured in from the outer cold, urged by curiosity to see the white woman who possessed picture books of Navajo lore. I had with me Washington Matthews' account of the Mountain Chant which proved an unending source of interest to those neophytes who were studying to become medicine men. There, in undisputed color and exact design, were reproductions of their sacred sand paintings. White magic that, which gave the Indians a sense of



"HAPPILY THE CHIEFS WILL REGARD YOU"

psychic security. They felt at home. When I asked for explanations of the patterns woven into the rugs, an old silversmith who proved to be a medicine man as well, volunteered to tell what he knew. He said that a certain four-armed figure against a white background was *Tsisnadzini*, the sacred mountain of the east. Another pattern he called clouds on a summer sky, white on a gray-blue background. Only a medicine man could interpret these designs for they were derived from the sacred sand painting lore. As the old man waxed enthusiastic over his self-appointed task, a surly fellow who had had too evident contact with the whites at the railroad, announced that the story-teller should be paid because the curious white woman would make money. Roy silenced him. He had no influence on the inspired silversmith who answered:

"Some people do not believe. She believes because she loves the beautiful. She wears the turquoise."

Spontaneously we two clasped hands as artist to artist. I felt that I was nearing the beautiful trail. My happiness was complete. I said to the trader:

"I can never thank you enough for

providing this opportunity. It is the contact I needed."

The road to the north was open. It was time to move on toward Oraibi, the Hopi village sixty miles away. In the previous summer I had noticed scraggly peach trees growing against the bare rocks of Pumpkin Hill. How thrilling they would be when they burst into pink bloom! I must sketch the old trees whose ancestors had come out of Spain with the conquistadores.

Roy's people at a small post north of us invited me to stay with them for a few days. Life at Williams Post kept to an even tenor. Only once did my activities disturb it. I was painting a tired-looking mare, with an end-of-the-trail droop, beside a rickety hogan with desert stretching to distant red mesas. The weather was beastly cold, my fingers numb by the time I entered the store to rest. There, Mr. Williams informed me that the Navajo who owned the pony said that I had cast a spell upon it. The animal was sick.

"It looks to me like a case of bots," he added. "I'm getting a pint of turpentine to pour down its throat. You'd better keep out of sight. If the pony gets worse, the Indian will blame you."

Out of sight I kept, pondering over the accusation of witchcraft. After an hour or two the smiling owner of the bewitched animal entered the room with Mr. Williams. "*Yahtay, Yahtay!*" exclaimed the Navajo.

"That means O.K. The mare has just foaled. Now, this superstitious native wishes you to paint the offspring. He says you're a good medicine woman, bring him good luck," explained the trader.

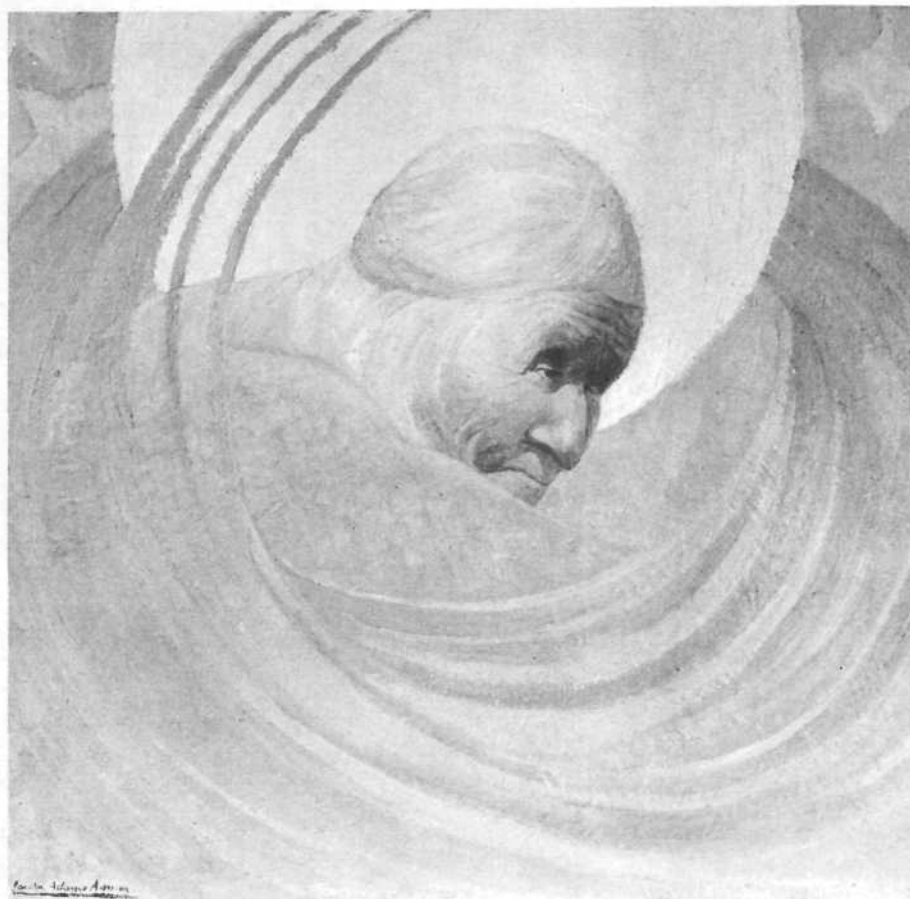
The Indian stood looking at the painting, repeating: "*Yahtay, Yahtay.*" He pointed to the ears of the mare indicating that they were too long and made the pony look like a mule. He clasped my hand as he was about to leave. Gazing at the blue earrings, he said reverently:

"*Nezhoni*," . . . beautiful.

The news of a white-haired medicine woman wearing blue-sky stones spread over the country. The Indians were willing to pose in front of the camera. Red Hat wanted me to paint his wife. I wondered if he hoped that the elderly Sarah would produce a Navajo Isaac to be the pride of his old age.

One day there came riding on a winter-coated pony an old medicine man who must have been four-score-ten or more. He was bedecked with turquoise, white shell and coral necklaces. He wore turquoise in his ear lobes. A tobacco pouch hung from a leather strap across his right shoulder, the strap closely set with silver studs. A leather bow-guard on his right wrist indicated that the ancient one had once hunted with bow and arrow. The buckskin moccasins came nearly to his knees and were bound with woven scarlet garters. Altogether he looked like a traveling museum of classic old-time Navajo jewelry.

When asked to sit on the Trading Post steps to be photographed his dignity was great, his pride in his trappings so evident that he rolled his calico pants to the knees to expose the fringed garters. When I stepped close to him to adjust an unruly fold in his jacket, I was vehemently repulsed. I learned then and there that a Navajo resents being touched. His person is sacred. Just such an old man it must have been in the beginning, who begged to carry the moon across the sky. His face showed the security of established belief. He stood for all the warrior strength of the ancients; all the secret wisdom of a nomad race. —End of Part II. Next installment: "A Visit to the Hopi"



LAURA ARMER'S PAINTING, "THE MOON BEARER"

DATURA

... a deadly killer weed shows off its rare beauty in the desert home garden

by Idalia C. McIver

KILL OR CURE? Depends on how you treat the lowly Jimson Weed of Western folklore. Like many beautiful garden plants—foxgloves, solanums and oleanders—datura is a drug plant containing powerful alkaloids. Every home-gardener takes some risk in cultivating this plant, letting unseen dangers be over-shadowed by visible beauty. But, this is not the whole story, for as a drug plant, datura has its good points as well as its bad, and in any case the drugs—atropine and hyoscyamine—are concentrated in a few parts of the plant, and datura is not dangerous except when those parts are eaten. Thus, it offers danger to children and pets.

In India, where datura originates, mothers-in-law are commonly disposed of by being fed the seeds of this wicked beauty, which first make them blind and then take their lives. Yet, curiously, atropine, obtained from the leaves and seeds of datura, is used to dilate the eyes for optical treatment. Its medical use is also widely known in the treatment of asthma to relieve bronchial spasm. Many ocean voyagers owe a pleasant crossing to atropine when it is made up as a drug for overcoming motion-sickness.

Datura's narcotic properties did not go unnoticed by the Indians of the Southwest. The Zuni still use the powdered root of datura in their rain ceremonies. Mohave Indians—"Dreamers of the Colorado River"—drank a concoction of datura to bring on visions and hallucinations. Pueblo doctors used the root of the plants for an anesthetic. The Cahuilla and other California Indians made use of the plant in their initiation rites for boys stepping over the threshold into manhood. The medicine men of the Hualapai Indians of Arizona would utter oracular prophecies while intoxicated by a datura brew. The Paiutes made an intoxicant from datura seeds.

Death in modern times from datura is not restricted to Asia, for Southwestern ranchers and farmers lose stock when hungry cattle and goats eat young datura plants. Because of this, there has been a concentrated drive in the

Southwest to eradicate the four main species of datura found here: *Datura metelioides* (which grows throughout the Southwest and northern Mexico); *Datura discolor* (found on the Low Desert of California); *Datura tatula* ("purple thorn apple"—a tropical native now widely distributed in California); and *Datura stramonium* (also known as "Jimson weed"). Datura has a string of aliases: angel's trumpet, moon flower and Jamestown weed, to mention a few.

Datura's double nature will make eradication almost impossible, for the various species have great beauty and are sought for landscape plantings in

They should be planted about three feet apart. Varieties include *D. metel*, an annual with white, blue, yellow and red blooms; *D. suaveolens*, a tall shrub with white blooms—the common angel's trumpet; and *D. meteloides*, a tender perennial with rose tinted white flowers. The latter plant is grown commercially as a medicinal herb.

One datura variety, *D. chlorantha*, with double yellow blossoms, grows to a height of 60 inches, with dark green glossy leaves. Sometimes the blossoms are cream or purple in color. The flowering season is early summer through late fall. The trumpet-like blossoms, similar in shape and size to



THE LOWLY JIMSON WEED IN A NEW SETTING

some of the loveliest Southwest gardens, whose owners prize the plant's beauty and ignore its danger.

"Plant datura and make friends," is the way one of my gardener friends puts it. "I've had people knocking at my door at all hours wanting to know the name of all those beautiful flowers in the front yard. A plant with as many as 100 beautiful flowers is bound to attract attention."

The garden varieties of datura are cultivated as annuals. These plants like full sunshine and good drainage.

the Easter Lily, stand rather upright over the top of the foliage. On a well-nourished plant there may be from 10 to 100 blooms open at one time.

Some of the ornamental datura plants, if protected in winter, will do well in any garden. Plantings in large pots or tubs should be brought indoors before the first frost.

The larger seed houses have carried datura seeds for some time, but popularity of the plant has diminished through the years. Today it is hard to find seeds on the market.—END

Some Field Notes on Bighorn Sheep

and other wildlife of the Santa Rosa Mountains made by
W. L. WIEDERHOEFT

during the California Department of Fish & Game's
summer sheep count

A PERSPIRING STOP in the dry wash bottom was in order. I was in a desert canyon of the Santa Rosa Mountains of Southeastern California—and it was June. I sat down by the side of the trail to regroup enough of my fast-dwindling energy to reach my assigned goal—a desert spring where I was to make a count of bighorn sheep.

I was one of a half-dozen "spotters" on this California Department of Fish and Game assignment. Our job was to ascertain bighorn population trends, check the condition of the animals—to obtain all possible information on the sheep as well as other game in the area. Rams, ewes, yearlings and lambs were to be tallied, the age of rams estimated. We were to report on the condition of forage and water in the mountains.

My trail was an easy one to follow. It was an old worn Indian route still marked by stone "ducks." Tracks and

signs showed that the trail's only traffic at present came from coyote, deer and bighorn. Along one rim I saw chukar partridge tracks, and farther on, in the wash bottom, I came across the feathers of an adult chukar—evidently where another creature had found the bird. There were coyote scats along the trail; a check showed most of them composed of juniper and manzanita berries, though a few were darker, indicating a higher content of animal protein.

The main wash had also contained the lower jawbone and part of the vertebra column of a bighorn ewe (as indicated by part of a nearby horn). Cause of demise was unknown, but evidently occurred a number of years prior to my visit.

I rose to start back up the trail, but my wandering eye settled on a slow-moving form. Twenty yards away a bighorn ram slowly stepped from behind a large rock, then vanished behind a wash bank. The dark gray ram had three-quarter curl horns.

Lethargy vanished! After allowing enough time to make sure the ram would not reappear farther on, I slipped off my pack and searched for him. But not enough energy had returned; I soon gave up. Then I investigated the probability that the sheep had been at water. Sure enough, a spring was found within feet of where I had seen him.

Our encounter had come at 6:45 in the late afternoon. Light was beginning to wane in the canyon bottom, and because darkness would soon be upon me, I hurried to set-up camp. I filled two canteens at the ram's spring, then searched for a good place to camp on the opposite wash bank. Not with-

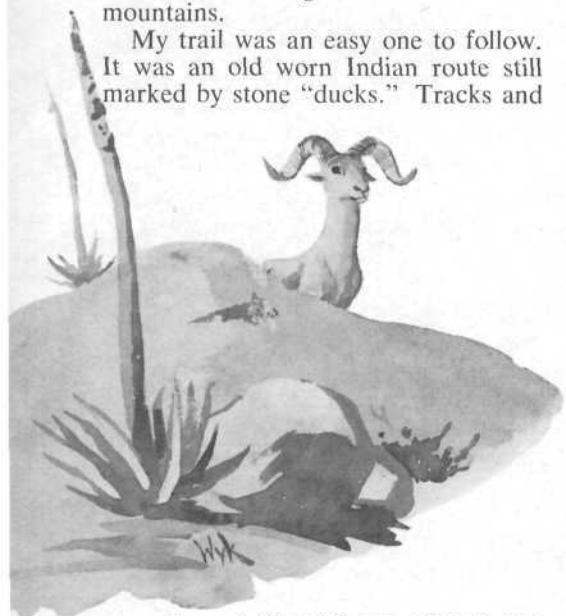
out effort a flat rockless campsite was found. It was ideal for observing the waterhole and whatever activity would take place there.

Three stones formed a hearth for a tiny flame of dry twigs. Then I rolled-out my sleeping bag and called it a day. But I soon discovered that I was not alone at the campsite. I felt an insect crawl up my leg. It bit—hard! Some of his friends arrived to deliver their welcoming bites. I lit a match and saw that the ground was covered with a mobile mass of large ants armed with heavy mandibles. Discretion on my part seemed wiser than stubbornness, and retreat was made to a rockier but less-heavily populated area. Several times during the night clattering sounds and falling rocks indicated hooved animals moving nearby.

The following morning was clear and promised the same high temperatures of the day before. Hot weather is the best time to count sheep, for they collect at waterholes during the summer. With dead maguey stalks I made a framework over some boulders, and my sleeping bag was transformed into a combination blind and awning.

About 5:45 a.m. calls of mountain quail and Gambel's quail were heard. Chukars called several times, but none came in to water, nor were they heard again. Shortly after sunrise the procession of mountain quail from the oak-pinyon country began down the rock-slide to the waterhole. The groups numbered from two to 25 birds, and all were noisy. The birds happily visited one another as they made their way over and around the sun-weathered boulders.

Shortly after 9 o'clock I went to



"... I SCANNED THE SKYLINE AND SAW A SHEEP STANDING ON A ROCK."

the spring to fill my canteens, and discovered that quail could come down into water without being observed from my vantage point, so I moved my bulky awning to a more strategically-located rock-pile about 60 yards from the water. About 10:30 I saw a pair of Gambel's quail with one half-grown chick. They were hunting rock shade. That was the last activity I observed until 4:35 in the afternoon. The heat was great and the sun blistering. No animals or birds stirred in my canyon oven.

At 4:35 I scanned the skyline and saw a sheep standing on a rock. Its shaded side was ultramarine blue, its sunlit side white. Only when it turned its head so the horn-mass darkened with shadow was it discernible as a ram. At 5 p.m. it butted a maguey stalk, then slowly walked off the rock and out of sight over the ridge.

Next morning a large forked-horn buck deer came to the water, then worked his way up the nose of the ridge to the mountain top. His horns were in velvet and he was reddish of coat. At 8:05 falling rocks heralded the approach of a group of four deer to the spring. All were large bucks with antlers in velvet. They avoided getting nearer than four or five feet of one another, and when one would lower his head threateningly toward the deer ahead, the latter animal hurriedly increased the distance between them.

When the deer reached the spring, my scent threw them into wild-eyed alarm. They searched the surroundings closely. Houndlike, with muzzle to the ground, one of the deer followed my scent until he lost it in dry sand. Finally reassured, they drank, then fed and wandered about on the rock slide. Boldly they crossed loose rock, and when an animal above the others started rocks falling, those below bounded out of the way. All these deer were alike in heaviness of shoulder, depth of brisket and exceptionally heavy forearm muscles. I wonder if these traits are developed as racial characteristics by these rugged mountains.

The smallest buck seemed constantly out of sorts; possibly this was his area and the others were intruders. Once he faced another buck and both reared and struck each other with sharp forefeet. The larger deer broke off this engagement and bounded down the slide. The smaller one slowly climbed the mountainside in the direction from whence they had come, stopping often to look back, still grumpy. The others dropped into the wash bottom and fed on the green growth. Deer actions, I jotted in my notebook,

are more nervous and flighty than those of the deliberate bighorn.

Toward noon, as the heat pushed itself heavily against the canyon walls, I figured activity would cease, as it had the day before. But a clatter of rocks announced a large ram, already nearing the spring, coming at a trot. He went right to the water. Though he was out of my sight, I could hear him sucking the water into his throat. After five minutes he clambered on



"HE LAPPED HIS LOWER LIP WITH HIS TONGUE."

top of a boulder and watched me from 50 yards away, turning his head whenever his heavy horns obstructed his vision. He lapped his lower lip with his tongue. He was light ash gray in color—even to the horns which had a three-quarter curl and five growth rings. At times his back ridge line showed a hint of tan. At 12:20 he went to the wash bottom to water again, then watched me from 85 yards away. Again the impression was of a sleek massive body on slim legs, which, along with the head, are rawboned rather than tapering as in the deer. At 12:25 he started up the mountain, choosing to pick his way up the rock slide. He paused occasionally to peer

about, never ran, and soon went over the rim out of sight, about 500 feet up.

At 2:45 I left the blind to go to the water and startled a drinking ewe. She, too, was clear gray, but much smaller and more lightly-built than the ram, particularly light in the hind quarters, and her horns were slender and goat-like. After my intrusion she bounced to the safety of the bank about us, but not at breakneck speed, and arriving there she stopped and looked back, before moving on. Once from the top of a large rock heap she watched me for some time. Then she went up the hill.

I did a little exploring at dusk and a dozen adult Gambel's quail were flushed from roosts in a thicket of desert willow. Several great-horned owls flew from rock ledge to rock ledge and gave continual rasping chirps. Underfoot, tree frogs scurried mouselike in short quick hops from cover to cover. During the day they trilled from the spring. California jays, ash-throated flycatchers, and wrens were birds familiar to me, but a number of lemon-yellow Scott's orioles which sang and perched on maguey stalks were a special treat, for I had seldom seen them in this country previously.

That night a coyote howled. I enjoyed his brief song. In the ravine his yapping picked up eerie awesome tones from the canyon walls.

What chance would a bighorn have against a coyote? An experience I had in the Chuckawalla Mountains of Southeastern California convinced me that coyotes are no threat to sheep. I was exploring the Chuckawallas with my year-old Norwegian elkhound when we caught sight of a fleeing bighorn ewe and its tiny lamb. The dog darted in immediate pursuit, and on the slope it came up to within 10 feet of the lamb. But when the larger



A SHEEP
CENSUS
HEADQUARTERS

rocks were reached, both bighorns bounded from rock to rock and gained distance on the pursuing dog. The lamb went over the ridge and out of sight, but the ewe stopped a hundred yards from where it had started to run away from my elkhound. She turned, arched her neck and brought forward spiked horns.

The dog came to a halt and half-turned, uncertain. The ewe quickly made up the dog's mind. She advanced with deliberativeness. The dog retreated, but the ewe stayed right on its flank and bumped it twice with her

spread horns. The left horn of one was smaller than his right. The biggest ram began to drink and the other two trotted up. All three tried to drink simultaneously, and side-butted and pushed for access to the best basin, for there was little water.

Twice two rams came face to face, and each time they lowered heads and banged horns with a loud impact, but seemingly without animosity or ill effect. Perhaps this was their form of salutation. Soon the biggest ram moved to the top of a boulder 20 feet up. He must have spied me then, for

Indian friend "a dollar for every bighorn you bring me."

The Indian knew of a hidden seep in the mountains — a vital watering place for the sheep and therefore a perfect place to hunt the animals. In time the Indian brought in over a hundred sheep to the settler.

In later years the Indian showed the settler's two sons his sheep seep, and they also jealously kept its location to themselves as a good hunting place. When the settler's sons passed from youth into middle age most of this area was included within the boundaries of Anza State Park and poaching on the sheep severely discouraged.

Finally, the two guardians of the secret of the seep spoke of it to several friends who delighted in jeeping over the desert. The settler's sons even accompanied two of the desert explorers to the sheep waterhole. Wetness seeped from seams in the rock, but there was no standing water. To obtain moisture, the larger animals resorted to licking the moist rocks—or digging for it in the not-always-moist sand. The men got out their equipment, and the beating of metal on rock rang out in the canyon. It was slow work, but after several hours two pockets were chipped out of the boulder under the face of the spring. Into each of these "tanks" trickled a quart of water — considerably more than nothing.

Several more times in the following months the men returned. After more work with hammer and gad, the two pockets held over a gallon of water. The men plan further trips into the area to increase the size of the tanks.

Now the water seep will help save the sheep, increase their numbers and enable them to water away from more exposed areas where poachers might get them. At least that is the hope of the two who chiseled the water tanks at the seep.—END



"THE EWE QUICKLY MADE UP THE DOG'S MIND. SHE ADVANCED WITH DELIBERATIVENESS."

head. The second bump sent the dog sideways off a large rock. Here the elkhound growled, but didn't slow down its flight and ran to where I was standing. The bighorn stood for some time about 30 feet away from us, bobbing her head purposefully. Finally she turned and walked back to the ridge top, then followed the crestline to where her baby was waiting.

The ewe had not seemed highly angered with the dog, merely irritated and seemingly determined to put the canine on the right track. It seemed to me, too, that she did not try to harm the dog, although had they been on a precipice it would have been the end for my elkhound.

The following morning, after several hours of fruitless scanning, I started back. Despite the heat and ants I was sorry to leave the tranquil canyon. Actually I had never been alone here, nor was I lonely.

Just as I was leaving the tank I received a farewell treat—a large bighorn appeared a mere 15 yards away. I froze. On the bank above I saw two more, both gray, both with three-quarter curl horns.

Whereas the previous day's ram had a thin goatlike face and close horns, these had short thick faces and wide-

the two other animals leaped up the same bank. I stepped out and after a bit they walked and trotted to a trail. Once there they stopped to watch me make my awkward way back to another world.

There is a footnote to my story that is both significant and revealing. It shows how time has changed man's attitude toward the rare bighorn.

Many years ago in the Anza Desert south of the Santa Rosa Mountains there lived a settler who had a taste for barbecued bighorn. He offered an

Summary of Sheep Surveys

What has the Department of Fish and Game learned from its bighorn sheep surveys of 1953, '58 and '59 in the Santa Rosa Mountains? Bonnar Blong, F&G Game Manager stationed at Idyllwild, presents this summary:

1. The bighorn sheep range is generally below 4000 feet elevation in the Santa Rosa Mountains.
2. Water distribution in the summer months appears to limit the size of the total bighorn population. In '59 a number of the springs were dry and the sheep had left these areas.
3. The bighorn population in these mountains has as many adult rams as adult ewes.
4. The low percentage of lambs that survive indicates the population is in a static condition.
5. Total population of bighorns in the Santa Rosas is estimated at 350—a figure the Department considers "conservative."

UTAH'S BASEMENT HOMES

BY
FRANK
JENSEN

"GIVE ME A house by the side of the road!" sang the poet. Had the writer of that deathless line lived in Utah, he might have changed his tune to: "... by the side and slightly below the level of the road," for the Beehive State has its own peculiar roadside abode in the form of "basement houses." These "half-under" dwellings protrude from the ground like so many glorified sod huts. Some look like misplaced bomb shelters.

Actually, these homes are victims of the Depression '30s when a house could be built for less than \$1000, but a day's work consisted of standing in a breadline.

The basement home was ordinarily dug out by hand, a method that required months of backbreaking labor. A more mechanized approach was to use a horse-drawn scraper shaped something like a sugar-scoop. One man would lead the team while the other guided the scraper. The hazards of this work were legion, and the operator who chanced to hit a root or rock was sometimes flipped into the middle of the doubletree.

Once the basement was excavated it was ready for concrete. More often than not this meant hauling gravel for miles with a wagon equipped with a removable bottom through which the load was dumped. The cement mixer, in contrast to today's behemoths, was a one-lung affair with a large flywheel based on a modification of the steam engine. Putting up forms for the concrete was a job in itself that required a week or more to accomplish. But, there was no need for outer forms—the smoothed-off dirt wall served that purpose. Also eliminated was the need for fancy exterior facing and the usual complement of doors and windows.

Most of the original basement homes were capped with a subfloor and tar-paper to keep the rain out. With this "roof" in place, the family was ready to move in. If and when there was enough money, a real aboveground home could be built onto the basement. Some folks decided the basement was adequate, and a gabled roof rose from the ground (see accompanying photograph). These were "de-luxe models," nearly on a par cost-wise with conventional homes.

At the end of World War II, low cost government-approved loans made it possible for many basement dwell-

lers to remodel their houses aboveground. As a result, the sunken home is rapidly disappearing from the Utah scene.

The idea of living in a basement was not born in the Depression. In the late 1800s when Utah was still a territory and the West not entirely tamed, the Federal Government cracked down on polygamy in the Great Basin stronghold of Mormonism. Those Latter Day Saints who espoused the cause of plural marriage were forced either to flee the country, or hide out. While the two-storied polygamist home had ample space aboveground, it sometimes had a small—and secret—underground cellar equipped with bedding and food.

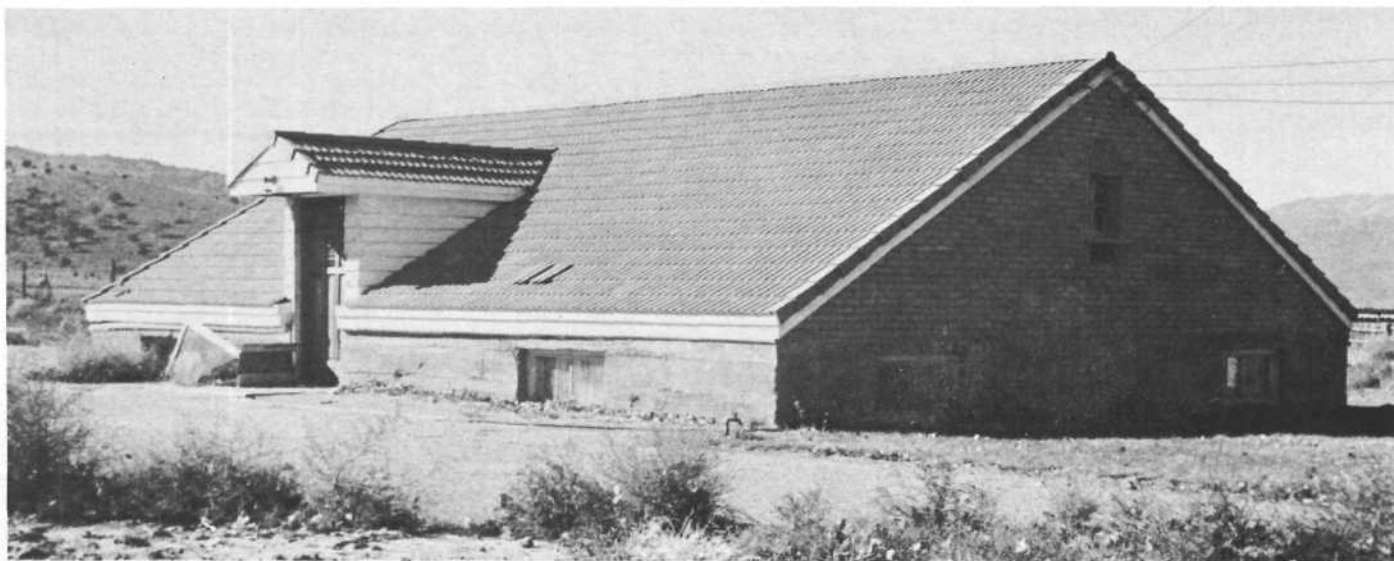
One descendant of a Utah pioneer told me how her family would nail down the rug over the trap-door when the Federal agents came to town. The children, who ordinarily slept on the floor, would lay out their straw-filled ticks on the carpet. She remembers the marshals stepping on her pig-tails as they searched the house—while father was comfortably secreted below.

Need for spaciousness in the pioneer polygamous home is self evident. A story is still told in southern Utah of a rosy-cheeked schoolboy of the early 1900s who was asked on his first day in school to write the names of his brothers and sisters. "You want all of them?" he inquired glumly, "There's only 45!"

For nearly a century pioneer architecture has set the pattern in Utah. These homes were as austere as they were large. The walls rise to a plain gabled roof. Construction was usually of adobe or sandstone. The rectangular home was good enough for grandfather and is still sound construction today. The small crowded sunken homes—babies of the Depression—were only an innovation in the passing scene.

In recent years Utahans have become less conservative-minded and are demanding something more to live in than a box with a roof on it. Contemporary architecture with its low rambling silhouette has come into vogue in the metropolitan as well as in a few of the rural areas of the state. Even with the trend toward modernization, however, Utah homes still retain many of the practical easy-to-live-with features their pioneer forebears took for granted.

—END





PORTRAIT OF CHARLES REYNOLDS BY FELLOW NEW MEXICO ARTIST BETTINA STEINKE

By W. Thetford LeViness

TAOS, NEW MEXICO, is widely acclaimed as one of the Southwest's most important art centers. Nestled in the foothills of the Sangre de Cristo Mountains and on a high plateau above the Rio Grande, Taos began to attract artists before the turn of the century. Studios were established, galleries built. For more than 60 years Taos has had its "name artists"—men and women of sound reputation among critics of the nation and the world.

One of the foremost artists in Taos today is Charles H. Reynolds, best known for landscapes which depict the New Mexico scene. He markets his paintings almost entirely through his own gallery, although he will occasionally hold an exhibition outside the state. "If you get to Taos, be sure to bring back a Reynolds," say satisfied clients in many parts of the country who have visited his gallery and purchased there.

Reynolds was born in Kiowa, Indian Territory, in 1902. Indian Territory became a part of Oklahoma, the 46th state, in 1907, and Charlie was educated at its biggest schools. He attended the University of Oklahoma and the University of Tulsa, and as a young man was a pharmacist. He studied accounting too, and became chief clerk to the treasurer of a large Oklahoma oil company. Later, he served as secretary-treasurer to an engineering laboratory.

He got into painting in 1925, almost by accident. He was living in Tulsa with his wife, Ruth, who did some home decorative art. One time when

Artist

CHARLES REYNOLDS

of Taos

his canvases depict the New Mexico outdoor scene

she was sick he finished some of her work for her. It proved immediately popular, and he decided then and there to paint professionally.

"I learned to paint by painting," Reynolds says. "After I'd painted a number of farm scenes and aspens and missions I knew how to make them look pleasing. Then came the hard task of learning the rudiments of good painting—composition, for example—and incorporating them into my work."

This "painting to perfection" is the essence of Reynolds' technique. He took a six-weeks' course at the Chicago Art Institute and once was a pupil of John Elliott Jenkins. Otherwise Reynolds is self-taught. But he does adobe houses and spring mornings, mountain streams and desert vistas with as much imagination as some who have spent a decade or more in art classes. Perspective, foreshortening and other aspects of lineal theory seem to come naturally to Charlie Reynolds.

The artist "discovered" Taos in 1932. Every year thereafter he and Ruth would go there for several weeks, and they'd make field trips to other parts of northern New Mexico. They became increasingly familiar with the Indians of this section—Pueblo, Navajo and Jicarilla Apache. Charlie was inspired, and he soon began to "capture" the lives of these tribesmen on his canvases. He moved to Taos permanently in 1946, and rented space for a gallery the following year. Then he bought some land in the downtown section of the city, constructed the present Reynolds Gallery, and opened it in 1950. He sells paintings by several other Taos artists, and Ruth runs a gift shop in one wing of the building. Their son, Charles, Jr., does some wood sculpture and sells it there.

"I was drawn to Taos by the incomparable beauty of the country," Reynolds says. "New Mexico has col-

orful old Indian and Spanish communities, and they provide unlimited opportunities for painting and selling. Also, I wanted to be associated with the 'Taos greats'—Phillips, Sharp, Higgins and the others. All these men were alive when I first settled in Taos, and it was a source of deep satisfaction to me to live in their midst and get to know them personally."

Reynolds is a confirmed realist. As such, he believes that when a tourist comes to Taos to buy a painting it's usually something of New Mexico he wants—a piece that will remind him of his visit in this area. Reynolds has overwhelming enthusiasm for the traditional, and therefore handles only conservatives in his gallery. Those who sell there include Bettina Steinke the portraitist, Doel Reed, and Stanley Bettise, a Navajo who draws upon his cultural background for subject matter. There's a long list of other Taos artists represented—Leal Mack, P. A. Moore, Ted DeGrazia, Richard Schmid and Eugene Dobosiewicz, to mention a few. Reynolds also markets a few masterpieces by deceased Taosens—O. E. Berninghaus and Sheldon Parsons, for example.

Reynolds has a sort of "sixth sense" of appraisal, and he prices his paintings accordingly. He never undersells—either his own work or that of others in his gallery. Every painting in the place has a price on the back of it, and if it goes at all that is what it goes for. "I don't believe in bargaining," he says. "It cheapens art to do that sort of thing."

Although he works chiefly in oils, Reynolds uses water colors with equal facility. His paintings seem to suit best the tastes of the average American art buyer—a reason, of course, for Reynolds' amazing popularity. The paintings are usually New Mexico scenes with a universal appeal—sheepherding on the Navajo Reservation, ranching

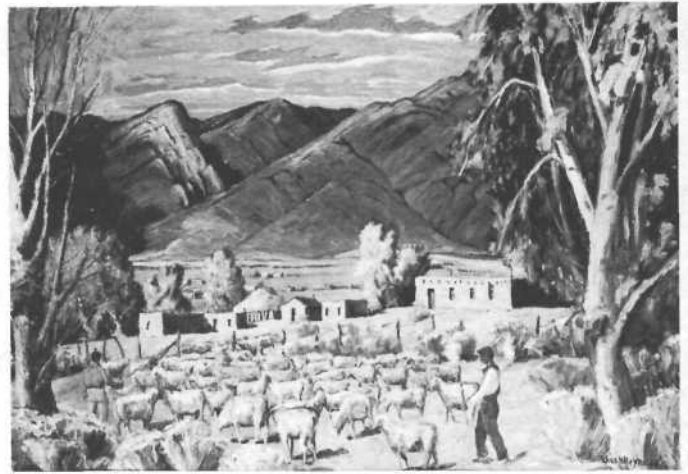


"Edge of the Apple Orchard"

in Taos Valley, and Pueblo Indian *fiestas* are among his favorites. He produces—and sells—dozens of aspen and winter scenes each year. Even the size of his paintings is popular, usually ranging from 24x30" to 36x40". A Reynolds is rarely too big to be carried home in a car, and easily hung; yet it is an adequate pleasure-giving space-filler on almost any wall.

Reynolds has exhibited from Connecticut to California, and is shown from time to time in exhibitions at the Museum of New Mexico art gallery in Santa Fe. He has held one-man shows in Oklahoma City and Tulsa, Oklahoma; and in Austin, Amarillo, Corpus Christi, Houston, and San Antonio, Texas. Also, he is represented in the permanent collections of the Gilcrease Institute, Tulsa; the W. B. Davis Museum, Duncan, Oklahoma; the Kosshare Museum, La Junta, Colorado; and the Alma Thomas Fine Arts Center, Georgetown, Texas. The Desert Magazine Art Gallery in Palm Desert, California, will have a Reynolds' show March 15 to April 4.

Reynolds is a fine technician and craftsman, as his paintings show; but he is equally adept as a salesman and promoter of art. He sells a great volume of art work in his establishment, both his own and that of others. His gallery is perhaps the largest commercial art mart in the state of New Mexico, and he plans to add 1500 square feet of floor space in 1960.—END



"Young Shepherds"



"Honeymoon Hogan"



"Processional at Mission of St. Francis of Assisi, Ranchos de Taos"

Pinyon Trees

OF THE SOUTHWEST

Four kinds of pinyon trees grow on the mountain slopes of the Southwest, and much of this area's romance and history are entwined in the fragrant smoke of yesterday's pinyon fires . . . pine nuts from these trees were an important food of the Indians . . . charcoal made from pinyon wood fired the kilns of the Southwest's once-booming metal mining industry . . .

By EDMUND C. JAEGER, D.Sc.

author of "DESERT WILDFLOWERS," "THE CALIFORNIA DESERTS,"
"OUR DESERT NEIGHBORS," "THE NORTH AMERICAN DESERTS"

ON THE DRY gravelly and rocky slopes of the low mountains and high mesas (3500-7000 feet) of the arid Great Basin states and northern Mexico grow the dwarf wide-crowned pines commonly known as pinyons or desert nut-pines. They are rather small as forest trees go, averaging only 15 to 30 feet in height; occasionally in wind-sheltered spots one may reach skyward to a height of 50 feet. Unlike most pines, these trees generally have short main trunks, wide-spreading flattish crowns, and crooked contorted branches often hanging low to the ground.

Man has long recognized the usefulness of these trees. The irregular route traveled by Cabeza de Vaca and his half-starved followers, first white men to cross the continent (1534-36), was largely determined and made possible by the pinyon trees of the highlands with their edible nuts, and the fruit-bearing cacti of the low valleys.

To Indians of the high mesas and low mountains of Nevada, Arizona and New Mexico, the abundance or failure of the pinyon crop often meant the difference between ample nourish-

ment and near to actual starvation. Unfortunately, good crops can be counted on only every few years. With earnestness, anxiety and pleasure, the Indians would inspect the trees early in summer to determine what promise the nut crop held. If few pinyon cones were evident, the tribesmen knew they would have to turn their attention toward securing other possible means of sustenance for the winter. More seeds of grasses and herbs would have to be gathered, stores of cactus joints dried, and meat of game animals smoked. If grasshoppers swarmed, they too would have to be gathered and dried.

There are four kinds of pinyon trees in our Southwest and northern Mexico:

The single-leaf pinyon (*Pinus monophylla*), state tree of Nevada. This is the common pinyon of Nevada and eastern California. It is unique among American pines in that its leaves occur singly on the stem.

The two-needle pinyon (*Pinus edulis*), state tree of New Mexico. This is the nut-pine common to Utah, Colo-

rado, Arizona and New Mexico. Its leaves grow in bundles of two.

The Mexican pinyon (*Pinus cerembroides*) has leaves in bundles of three.

The Parry nut-pine (*Pinus parryana*) has fascicles of four needles. This tree is native to far southern California and upper Baja California.

The frugal pinyons, with their spruce-like foliage, ask of us little but protection. They grow in rough areas unsuitable for agriculture, flourishing in the coarsest of soils or in crevices of rocks. Their stout and extensive root systems enable them to seek out the scanty but sufficient water supplies of their arid mountain home.

For the first five to seven years, the straight-stemmed slow-growing seedling trees have gray-green needle-like leaves that are quite different in appearance from those of adult specimens. For the next 15 or 20 years the young trees have shapely pyramidal crowns. After this many of the smaller branches die, and several to many of the others begin to thicken, twist and take on the gnarled form commonly associated with the older trees. At any age pinyons are slow growers and it is not uncommon for them to reach an age of 100-200 years. Some of the finest old brown-to-black-barked trees, with trunks from two to two and one-half feet in diameter, may be nearly 400 years old.

The small egg-shaped cones take two years to mature. Most of the growth takes place between April and August of the second year. The woody cone-scales turn brown during the last month or so, and by the last of September the fat brown seeds are ripe and ready to fall. Then is when they should be harvested. The scales gape widely and the nuts can be pried loose or shaken out. The Indians generally harvested the cones before the seeds fell, thus insuring that they, and not the eager ever-busy rodents and jays, would get the bulk of the crop.

The desert Indians often traveled arduous trails for several days to get to their wild pinyon orchards, and then spent a week or two gathering the harvest. After the cones were knocked from the trees with long poles, they were heaped over a bed of hot coals. The heat not only melted off much of the clear sticky resin with which the cones are generously provided, but also opened the scales so the seeds could come out readily. Dr. Edward Palmer, one of Baja California's early botanical explorers, observed the Copahs at their nutting camps in the Sierra Juarez.

"It was an interesting sight," wrote

Dr. Palmer, "to see these children of nature with their dirty laughing faces, parching and eating the pine nuts by the handful . . . At last we had the privilege of seeing primitive Americans gathering their uncultivated crop from primeval groves." Pinyon nuts are thin-shelled and easily cracked with the teeth. The sweet kernels are very nourishing and easy to digest.

Even today I find many of the remains of the old Indian nutting camps. Usually they consist of rings of stones and heaps of black ashes. Nuts not eaten raw or roasted were generally taken in baskets down the trails to the warm winter camps on the low desert, but at times the nuts were hidden away in resin-sealed earthen jars in the mountains.

One of the chief uses of the pinyon trees has been in the making of charcoal. Much of the West's mining activity took place near pinyon forests. Large beehive-shaped charcoal burning ovens were kept smoking continually to make fuel for the smelters. Chinese and Mexican wood-cutters by the hundreds depleted the forests of both dead and living trees over extensive areas. The close-grained yellow wood also was the only available source of support timbers for the mine tunnels and shafts in many Southwestern areas, and it was the healthiest and straightest trees that fell before the axe to supply this demand.

With anxious amazement and deep resentment the Indians saw the white man not only rob them of their game, but take their pinyon forests, on which they so much depended for one of their chief source of vegetable food.

Besides man with his deliberately planned or carelessly-caused fires, the greatest enemies of the pinyon forest are several kinds of small beetles that attack the leaves and sapwood. Devastating also are long sustained drouths and several kinds of mistletoe including the pinyon mistletoe (*Arceuthobium divaricatum*), widespread from Colorado, New Mexico and Arizona to California. Lightning sometimes smites the taller or more exposed trees, often setting them afire. Because of the usual wide-spacing of the trees, and the rain that often accompanies a storm, the fires seldom spread far.

Several attempts have been made to harvest the resin of pinyons. By gashing the trunks and treating the wounds with acid, a fair amount can be obtained. It contains a small portion of high-grade volatile oils or turpentine and about 80% resin. So far (and for this I am thankful) no

method has been found to economically harvest these products and so make the trees subject to widespread commercial exploitation.

Because of its high resin content, pinyon wood burns with a very hot flame and gives off a dense black smoke with pleasing sweet aroma that carries afar. It is an odor very dear to the hearts of all those who have ever lived in pinyon country.

There are several kinds of wildlife directly related to and dependent on our pinyons. Chief among these are the clever "talkative" blue-gray pinyon jays which in noisy companies of few to many hundreds of birds wander through the forest in autumn looking for the nuts, and at other times of the year for pinyon-dwelling insects. They eat nuts only after they have been exposed in the ripening cones or after they have fallen to the ground.

Vigorously competing with the jays for the nuts are numerous rodents varying in size from pack-rats (*Neotoma*) to the large-eared grayish-brown white-footed pinyon mice (*Peromyscus truei*) common to pinyon-juniper woodlands of the southwestern United States and almost the whole length of the central plateau of Mexico.

So diligent are these nut-gatherers

that I have many times seen the earth beneath the trees covered brown with fallen nuts one day and bare a few days later. Probably the bulk of the nuts thus gathered are cached by the rodents against the day of cold winter need.

Under every tree in the pinyon-mountains during late April, May and June can be found colorful beds of dainty flowers in shades of purples, yellows and pinks. These are the blossoms of the tender-stemmed phacelias and nemophilas that seek the semi-shade. They flourish in the humus derived from the decay of fallen pine needles.

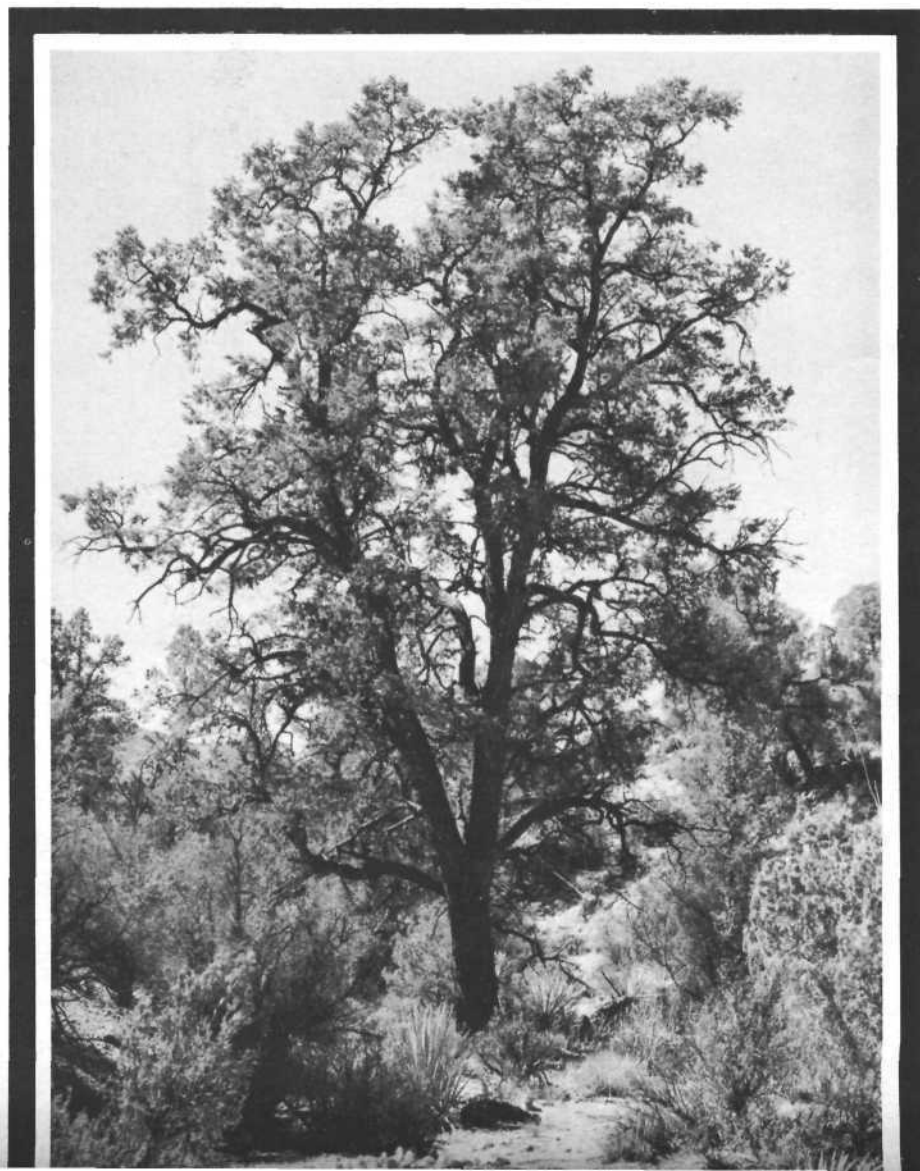
"It is always nice in the pinyon forests," a prospector friend of mine used to say. How right he was. It is seldom too hot in the summer, and even winter has seemingly unnumbered days of pleasant weather.

The grand and gnarled old trees, dignified and serene, living in a sun-drenched land by day and under a star-illuminated sky by night, are messengers of hope. They tell us of a higher way, calling us to a life of noble aspirations and earnest endeavor for the benefit of fellow mortals. How wise the man who thinks upon these things.—END

A PINYON PATRIARCH



APRIL, 1960



new life for dead Century Plants

the agave stem lives on
as a trellis for indoor vines

By Elizabeth Rigby



THROUGHOUT THE Desert Southwest one variety or another of the agave or "century plant" is commonly transplanted from the wild to serve as an important accent in the home landscaping scheme, and a tastefully arranged grouping of these handsome plants is strikingly effective the year round.

There is only one disadvantage to this usage—after the plant which may have been the *piece de resistance* of your desert garden sends up its long once-in-a-lifetime blossom stalk to provide you with a few weeks of breathtaking beauty, it will turn brown and forlorn and cry out for removal. If this happens to you, don't be downhearted. The dead agave will leave a space on your grounds to be filled, it is true, but the towering skeleton can still be useful and lovely.

When cut from the main stalk, the cluster of dried agave seedpods which open so gracefully to expose the coral-tinted inner pod linings (later these will turn to a glowing coppery tan handsomely marked with dark horizontal stripes where the seeds once lay) make effective and long-lasting components of dry floral arrangements. These may be so used with or without the stems. We have often included a few in gift boxes sent to friends in the East, many of whom have never seen a century plant, and the odd but attractive clusters have always evoked comments of pleasure and sometimes of perplexed curiosity.

Best of all, and most in keeping with its original destiny, the tall rigid stalk of a dead agave with its seedpod branches still in place can be used as an unusual ornamental support for a vine growing in an indoor planter, as the accompanying photograph shows. The stalk pictured was first cut to an appropriate length. The back branches were then removed and the butt-end of the stalk buried seven inches in the planter-box earth. To ensure its remaining upright, the stalk was fastened to the wall by strands of heavy white thread (invisible against the white of the wall) tying two opposing side branches to wire nails driven into the adobe brick.

The clinging vine of this particular happy marriage is set off by the painted adobe wall. The vine is a *Philodendron trifoliatum*. The lower clusters of leaves are those of an avocado plant grown from a seed. The tall thin spears in the lower right corner are young date palms grown from pits.

Among visitors to this home the near ceiling-high arrangement causes occasional mystification and so it becomes a "conversation piece." At night the light-colored century plant stalk is inconspicuous behind the dark green leaves of the *Philodendron* and the avocado, and at first glance the agave seedpods, dried and stripped of their seeds, appear to be exotic flowers. Puzzled by this strange "plant," guests often suppose the living vine and the extra-lived agave to be one. The natural-looking trellis has served its purpose here for six years and it promises to go on "blooming" for a long time, if not, perhaps, for the proverbial century.—END

DIRTY SOCK

... A "For Free" Spa on the Mojave Desert

BY MARGUERITE JENKINS

DIRTY SOCK is a little-known desert waterhole of uncommon reputation. It bubbles beneath the Sierra's "Sleeping Princess"—just east of her tresses.

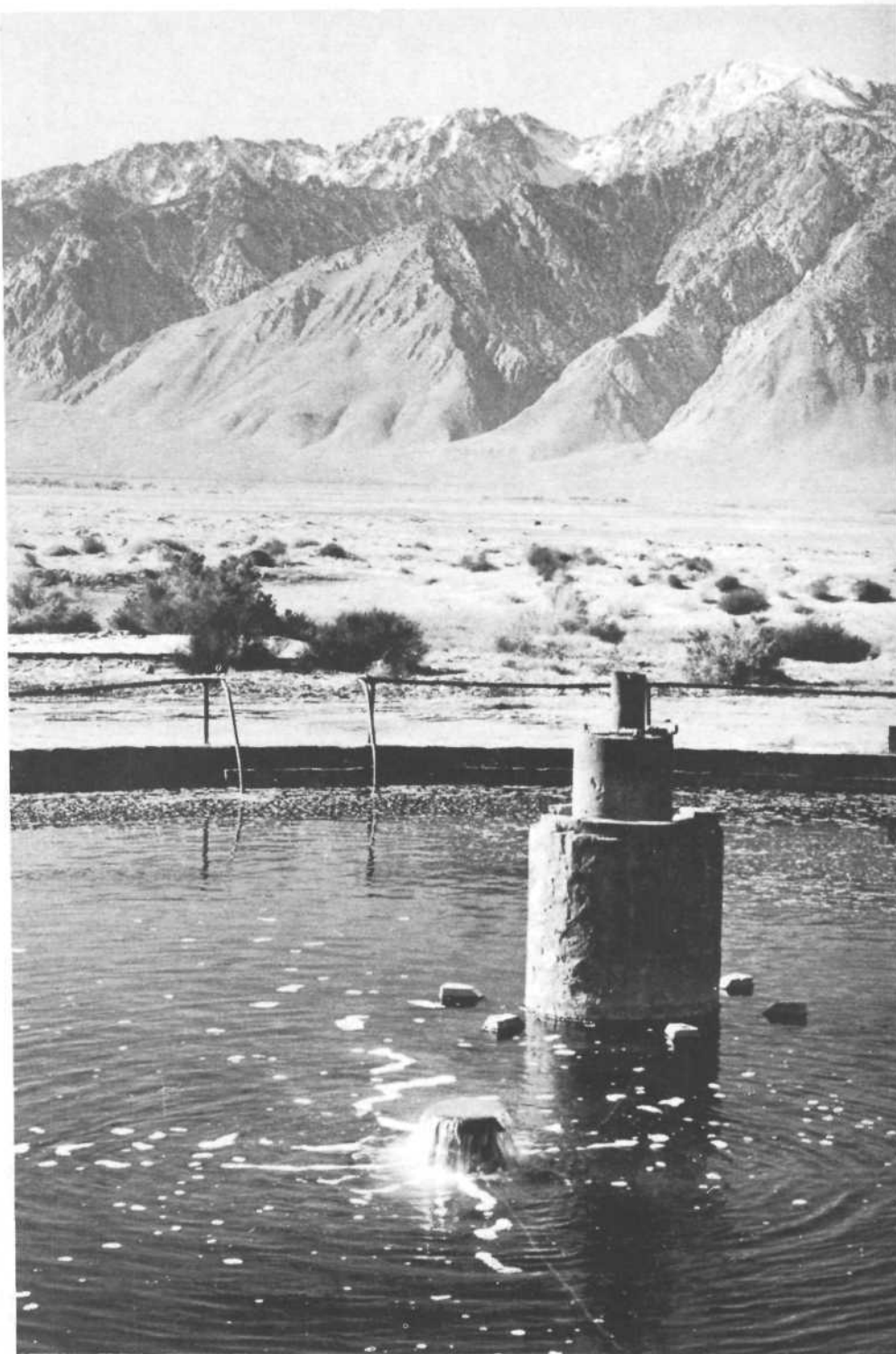
To locate it more specifically, leave Highway 6-395 at Olancho, California, and proceed 4.9 miles on the Death Valley Cutoff Highway. At the point where the power lines cross the highway, turn off on a dirt road to the left. Proceed .3 mile on this road — and there is one (in a long list of many) of Inyo County's singular attractions—an artesian well spewing forth 200 gallons of supposedly beneficial water every minute.

In 1917 the Pacific Santa Fe Railroad Company drilled on this southern shore of Owens Lake to get fresh water for the operation of a soda plant. At 600 feet they hit it but it was not sufficient for their needs, so they drilled deeper, went through hardwood logs at 1000 feet, hit shale at 1100 feet. Hot water gushed through the casing at 1200 feet and, in spite of efforts to plug it, has been gushing ever since. The well was abandoned, and Oliver A. Thorsen, retired postmaster of Darwin, eventually acquired it.

In spite of the fastidious few who have tried to change the name of this flow to Olancho Wells or Olancho Warm Springs, it remains as always: "Dirty Sock." How it acquired this uncomplimentary name is a matter of conjecture. The story most often told is that the miners and prospectors used this water—at least semi-annually—for bath, cure and laundry. They hung their clothes on the surrounding sagebrush to dry, but their socks, un-

Marguerite Jenkins went to live in the desert at Darwin, Calif., when she was nine years old, later moving to the Los Angeles area to attend college and pursue her secretarial career. She and her husband now live in Long Beach.

"I have had no love affair with the desert," writes Mrs. Jenkins. "The desert and I have waged hot wars and cold wars. We are now in the process of sealing a mutual acceptance pact."



derstandably no longer serviceable, were left in the pool. These discarded pieces of apparel supposedly marked the spa for subsequent weary, dirty and thirsty travelers. Actually, the highly mineralized water smells like a dirty sock — or, more succinctly, like many!

This doesn't seem to faze the people who drink it and make fantastic claims for its benefits. They come from all over the United States to fill their bottles with the fully carbonated, mineral, radio-active water. That it tastes like the white of an egg doesn't seem to bother them either, because they keep returning for refills.

Bathing in Dirty Sock is like bathing in champagne—if you hold your nose. The curative claims made for this delightful recreation are as enthusiastic as those for drinking it. The sensation, midway between relaxation and exhilaration, is undoubtedly due to the escaping gases with which the water bubbles. In the high heat of summer when the sun is baking the newly risen dunes, and the wind, white with soda dust, is blistering, the 94° temperature of the water is relatively cool and refreshing. In the winter when the world is white from the Sierra to the Coso Mountains, the steaming warmth of the vapor-shrouded pool is haven from the still white, now bitter, regaling wind.

Only the uninitiated would think of drying with a towel after a swim. Members of the Dirty Sock fraternity come out of the pool all bubbly, and wait stoically until the last bubble has popped. Skin will itch like crazy if you dry with a towel.

Dirty Sock enthusiasts will assure you that its joys and benefits are not limited to bathing and drinking. There is also the surrounding clay which they allege has peculiar curative properties. And the algal growth which forms continuously in the pool and the adjacent lake is used as therapeutically as the clay. Carnegie Institute experts see more importance in algae as a food, however. Dirty Sock is a natural laboratory for the practical application of the concept of feeding the world with the one-celled plant of plenty. Because of the unusual combination of mineral properties, temperature, and the high content of carbon dioxide and nitrogen, this water-hole produces algae in abundance. It is this algae which makes Dirty Sock smell like one. The water itself is odorless.

Migrant ducks, geese, herons and pelicans flock to "The Sock" and stay for weeks growing fat on the algae and peculiar mosquito fish. The latter, which bear their young alive, appeared in the lake about four years ago and have been thriving and multiplying ever since.

At one time, Thorson leased Dirty Sock to a promoter who was going to make Palm Springs look to its laurels. Unfortunately, all that remains of the \$150,000 purportedly spent here is a small lake and a concrete swimming pool 80 feet in diameter. That the waters of Dirty Sock do not gush from the impressive fountain in the pool as was planned is only one story in a long series of misfortunes that stalked the venture. The septic tanks and complete sewer system also remain, but what high-graders left of the buildings, vandals destroyed by fire.

Each weekend and holiday finds cars loaded with Dirty Sock devotees. They picnic, camp-out under the sun and stars or bring their trailers. Many stay for weeks. The families who vacation at Dirty Sock find richness in the seeming barrenness of the 45½ acres which comprise The Sock area.

Youngsters sculpture in the clay (Mother uses it for a beauty mask!), collect sandstone oddities, observe the water-birds by day and the coyotes, foxes and rabbits by night. The kids play in the sand, slide down the dunes, roam and explore, swim and grow healthy and brown. There is no charge, no watchman.

For 40 years the Indian and the white, the young and the old, the sick and the well have come to Dirty Sock. It has never been known to stop flowing.—END

POEM OF THE MONTH

Ghost Town Mansion

By *ETHEL JACOBSON*
Fullerton, California

Delicate cobwebs dress
These empty windows now
That look on nothingness,
Only a smoke tree bough
Where, silent as the house,
A small owl sits to stare
At what might be a mouse
Beneath a broken chair.

Once these webs were lace
Convent-loomed in France,
And laughter filled this place
Where only shadows dance.
A thousand candles lit
The festive scene 'til dawn,
Where now two gray bats flit
And only stars look on.

Desert Magazine pays \$5 each month for the poem chosen by the judges to appear in the magazine. To enter this contest simply mail your type-written poem (must be on a desert subject) to Poetry Contest, Desert Magazine, Palm Desert, Calif. Please include a stamped return envelope.

Desert Quiz In the history of the Southwest a few names stand out above others because of some special part they played in the exploration and conquest of the desert country. From the list of names at the bottom of this column fill in the 20 blanks below. A score of 12-14 correct answers is "fair"; 15-17 is "good"; 18 or better, "excellent." Answers are on page 30.

1. He was a great Paiute warrior chief:
2. He led the Army round-up of the Navajos:.....
3. He was governor of New Mexico:
4. His dream led to the reclamation of Imperial Valley, Calif.:.....
5. He was a leader of the Apaches:
6. He crossed Death Valley in 1849:
7. He led the Mormons to Utah:.....
8. He was a famous Mountain Man:
9. He was the first to navigate the Colorado River:.....
10. He brought the first camel caravan across the desert:.....
11. He led the first white party to Rainbow Bridge:.....
12. He wrote "Wonders of the Colorado Desert":.....
13. He brought the first white colony to California:.....
14. He founded missions in Pimeria Alta:.....
15. He operated a ferry on the Colorado River:.....
16. He fought the Earps at Tombstone:
17. He was a famous artist of the Western scene:.....
18. He was an Indian Trader:.....
19. He was a Death Valley prospector:
20. He gave his name to a silver lode:

- a—John Wetherill
b—William Lewis Manly
c—J. Lorenzo Hubbell
d—Winnemucca
e—C. R. Rockwood
f—Eusebio Kino
g—Bill Williams
h—Shorty Harris
i—Edward F. Beale
j—Juan Bautista de Anza
k—Kit Carson
l—Lew Wallace
m—Ike Clanton
n—Brigham Young
o—Henry Comstock
p—George Wharton James
q—Frederic Remington
r—John D. Lee
s—Geronimo
t—J. W. Powell

SOUTHWEST PHOTO TIPS

CAPTURING COLOR

By BOB RIDDELL

THE EASTMAN Company reports that more color film is used in the Southwest than anywhere else—and the best time of year to take your color shots of the desert is spring and summer. The sun cooperates to give good lighting to deserts, mountains, cacti, landmarks and missions. The big blue sky overhead is usually dotted with floating white clouds.

It is unfortunate that hundreds of camera fans get sad results with color because of carelessness. Know the index of your film; don't use the back window ledge or glove compartment of your car as a storage place for film. Intense heat will fog the film. On long trips keep film wrapped in a blanket away from the sun's rays. Develop your rolls as soon as possible.

Color film has less latitude than black and white, and a light meter is a cheap investment for insuring good results for those camera artists who use adjustable cameras. The electric eye or box camera owners are luckier.

With a slow speed, color film like Kodachrome (index 10) correct camera

setting in bright sunlight is 1/50 sec. at f. 8. I get excellent results with Anscochrome (index 32) with a setting of 1/50 sec. at f. 14. The new Ektachrome E-3 is an excellent faster film. Color prints are becoming increasingly popular—and these are shot on Kodocolor, a negative color film. Still a little expensive, but these color shots look good in the family album.

Remember: early morning light tends to produce "cold" color lighting; an overhead sun gives dull color effect with no contrast shadows; afternoon light is best—good shadows and a "warm" color effect.

Bright sunlight and colorful subjects combine to produce good color photos, but today the trend is toward shooting under adverse weather conditions. The pastel colors of rainy days, thunderstorms and overcast skies give a "feeling" to the scene. Flowers, cactus blossoms, scenics and canyons are good subjects. Compose carefully and fill the picture area. If you use models, have them dress in bright clothing. Experiment with sidelighting, backlighting, shooting in the shade.—END



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By Lucile Weight

P.O. Drawer 758, Twentynine Palms, Calif.

ON AGAIN, off again! That's how desert wildflower seasons often are. While 1959-60 fall and winter have been generally dry, warm weather lasted unusually long and local rains gave plants a good start in many scattered locations. So that is how visitors are likely to find good flower spots this spring—scattered. That is, if the following elements don't cancel out early showings: A sudden cold spell and a series of cold hard winds in late February—and truckloads of sheep hauled from one flower patch to another.

Those who want to get better acquainted with wildflowers this spring will be able to see flowers identified at shows throughout the desert in April. One of the first scheduled is for April 2-3 in Morongo Valley in Ritchie Fontaine Desert Room, combining wildflowers, cactus, desert woods. Also set for these dates is the second annual flower show of the Oasis Garden Club of Indian Wells Valley, to be held in Ridgecrest.

Name of this show is "Potpourri—Flowers and Fixin's." The Desert Museum in Palm Springs stages a flower show on April 9.

Two Mojave Desert shows are set for April 23-24. The Hi Vista Spring and Wildflower Festival (east of Lancaster) has long been a big event, and at China Lake in NOTS boundaries, enthusiastic residents have been educating and delighting crowds for many years with spectacular exhibits. This will be the 16th annual China Lake Wildflower Show—this year called "Desert Enchantment." Visitors can obtain passes to the Naval Station's Community Center Building at the Station's main gate.

In Death Valley, if there should be a "wonderful" display, there will be flower tours, says Chief Park Naturalist Wm. C. Bullard. His early forecast sounds like those of many desert veterans who are too experienced to make advance commitments: "It is rather hard to predict now what is going to happen to our flower display. . . . The winter rains have been rather favorable, but whether they came at just the right period we are not sure. If pushed out on a limb we might say that the prospects will be at least for an average year. If we get some more rain it might even be better."

Not only do many annuals reach their height in early April, but the perennials now add their color. In the lower deserts the Ocotillo usually is at its most brilliant; near canyons and washes the shrubby Chuparosa is dark crimson; along washes the Desert Orchid Willow (Chilopsis) starts blooming, as do the Mesquite and Catsclaw. The Palo Verde tree is usually at its most golden in April, and in the same areas may be seen the tall graceful Desert Lavender and the old-gold flowered rounded shrub Bebbia or Chuckawalla's Delight.

Mojave Yuccas will be blooming, and the unpredictable Joshua Trees should be seen. A few off-season ones were blooming in February. The Whipple Yucca, at the western edge of the Colorado Desert, is due to bloom, and in the same area there will be Scarlet Buglers and other Penstemons, Buckwheats, Sage, Pigmy Fir on rocky walls, and some Agaves may start before month's end.

One of the desert's most gorgeous flowers is the Kennedy Mariposa, a flaming orange. Some years it is rarely seen but sometimes it may cover a hillside, as in certain spots in Joshua Tree National Monument, north of Yucca Valley, Providence Mountain area, north slopes of El Paso Mountains. Often in the same area are Mojave Yucca, orchid Thistle Sage, Scarlet Paintbrush, yellow Desert Plume.

This is the most important month for cactus flowers, the Beavertail this month blooming in higher elevations, the Strawberry, the Chollas and Mammillarias.

Just a name-listing of the main April flowers would more than fill this page. If the elements allow, you will see flowers on nearly every desert road. You may discover some wonderful gardens—perhaps at that desert's edge from Warner's Ranch to Agua Caliente, Borrego Valley vicinity, Harper Dry Lake-Black and Opal Mountain area, Ord Mountains, Providence - New York Mountains, Red Rock-El Paso Mountains.

Don't forget your camera for a photo record of your finds, your wildflower book to check their identities, your visit to at least one wildflower show to learn flower names the easy way. Service stations may have local information.

And remember, there are laws against picking or destroying a plant or flower—unless you're a sheep or cow!

Scheduled in California for April are these events:

April 2-3—Annual DeAnza Jeep Cavalcade. For reservation blanks write to the C of C, Hemet.

April 23-24, April 30-May 1, May 7-8—33rd presentation of the Ramona pageant at the Ramona Bowl near Hemet. For ticket information write to Box 218, Hemet. —END

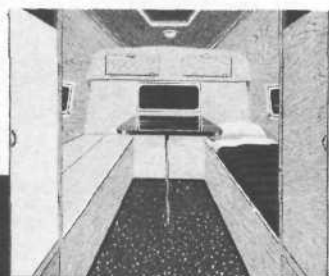
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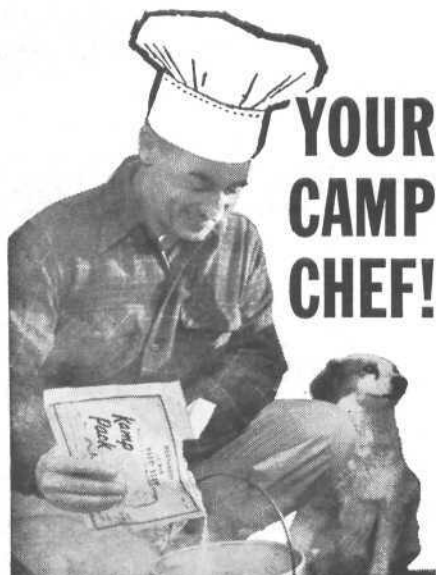
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DESERT QUIZ ANSWERS

Questions are on page 29

1. d—Winnemucca
2. k—Kit Carson
3. l—Lew Wallace
4. e—C. R. Rockwood
5. s—Geronimo
6. b—Wm. Lewis Manly
7. n—Brigham Young
8. g—Bill Williams
9. t—J. W. Powell
10. i—Edward F. Beale
11. a—John Wetherill
12. p—George Wharton James
13. j—Juan Bautista de Anza
14. f—Eusebio Kino
15. r—John D. Lee
16. m—Ike Clanton
17. q—Frederic Remington
18. c—J. Lorenzo Hubbell
19. h—Shorty Harris
20. o—Henry Comstock



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SOUTHWEST NEWS BRIEFS

¶ The Painted Rock flood control dam, 30 miles northwest of Gila Bend, Ariz., has been

Big Dam On the Gila

completed three months ahead of schedule. The \$19 million project is intended to provide protection for farms, towns, highways, irrigation projects and defense installations along the Gila River downstream from the damsite. The U.S. Army Corps of Engineers said the new dam can hold 2,491,700 acre feet of water—more than the capacity of all the storage dams on the Salt and Verde rivers. The dam is reached by a 16-mile access road off U.S. 80, 14 miles west of Gila Bend.

¶ The dream of Utahans to see Wasatch Mountain Park joining the undeveloped scenic

Utah Park Development

west-side of the Heber Valley with the Wasatch National Forest is nearing reality, the "Salt Lake Tribune" reports. A group of Wasatch County residents are undertaking to acquire 500 acres of farmland at the junction of Snake Creek and Pine Creek, west of Midway. This would be made available in one unit to the State Park and Recreation Commission and would serve as a nucleus for a state park. If this park core is obtained, the state commission will undertake to secure options on some 9500 acres of mountain lands adjacent to the Wasatch National Forest. If the plan goes through, there will be created here a matchless outdoor recreational area of national significance, project spokesmen say.

¶ Leaders of the Colorado River Indian Tribes are seeking ways to curb

Delinquent Indians

"parental delinquency." The Tribal Council was recently requested by the police to do something about children who run the streets while their parents are either in the "bar or other places until all hours of the morning." First step will be to establish a temporary facility for unattended youngsters whom the police pick-up in the town of Parker. Parents would be held responsible for children picked-up as to cost of transportation, food and other expenses. If the parents are unable to pay these costs in cash, they will have to pay in manual labor.

¶ The Bureau of Sport Fisheries and Wildlife has requested withdrawal

Land for Waterfowl

of more than 5914 acres of public land in the White River Valley of Nevada for stabilization of the Sunnyside Wildlife Management Area, the "Nevada State Journal" reports. The area, located 32 miles south of Lund, will be administered by the State Fish and Game Commission and will provide public hunting grounds and nesting, feeding and resting areas for waterfowl.

¶ Arizona is irked at its former "allies" in the historic battle over rights

Arizona Mad at "Allies"

to the mighty Colorado River's water and power. The Upper Basin States, which Arizona supported against California in the fight to construct Glen Canyon Dam, have intervened to oppose Arizona's bid to construct Bridge Canyon Dam near Grand Canyon. Arizona's application, now pending before the Federal Power Commission, is expected to be challenged by California, too, which also seeks to build the Bridge power dam.

¶ Utah Calcium Co. is putting a \$150,000 plant and mine into operation near Delle, Tooele County, in commercial 'rediscovery'

Onyx Mine 'Rediscovered'

of an important Utah mineral—white carbonate onyx. The "Salt Lake Tribune" says the deposit of aragonite mineral, a very high-purity calcium carbonate, was discovered at the turn of the century. The mine has had three "lives." Initially, the material was quarried for building trade. Then came a period when the "onyx" was ground-up and sold to the chicken-feed industry of the region. Today, the material is again being ground-up, but it is going to producers of cast building stone and distributors of landscape gravel.

¶ The U.S. Bureau of Mines is seeking \$704,000 in funds to continue

Shale Research

research in finding an inexpensive way to extract oil from rock deposits in the West. Officials say that shale deposits in Utah, Wyoming and Colorado "constitute a potential supply of oil to supplement petroleum in meeting rapidly growing demands for the nation's welfare and defense."

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By Peggy Trego

Unionville, via Imlay, Nev.

APRIL IS the time of year when the Death Valley and Southern Nevada region beckons the winter-weary. There's a wonderful diversity of outdoor recreation to be enjoyed in this area now—long reaches of sunny deserts, fine hills, the world's "most exciting" city (Las Vegas, of course) and ghost towns.

"Ghost wandering" is fun for many reasons—there's the contrast of old and new, gaiety and somberness; the warmth of heart (call it pity if you will) that the old, the lost and the slightly sad generates in the new, the warm and the alive. And, of course, "ghost wandering" is inexpensive and something your Easter-vacationing children find more exciting than the bright lights of plush casinos.

Near the current "Queen of Southern Nevada"—Las Vegas—lies the ghost of the long-deposed first queen of this part of the world—Rhyolite. It was quite a town in its day.

Rhyolite's shadowy remnant is 145 miles north of Las Vegas and a hop-skip from the eastern edge of Death Valley. Good highways lead to it—U.S. 95 takes you within a couple of miles, and the Daylight Pass Route from Death Valley (California's Highway 190 and Nevada's 58) goes right past the short dirt road to the old town.

Gold created Rhyolite. The first strike in the district was made just downhill and westerly of the city's site and resulted in the boom camps of Bullfrog and Bonanza in 1904. Living on the flat was miserable at best, and the first dusty tents flapped dismally in the wind. In early 1905, Pete and Ed Busch had the good sense to lay out a real city in the natural basin above the camps—a splendid site to which water was piped from three sources not 15 miles distant.

From the beginning, Rhyolite flourished almost violently and by its peak of prosperity two years later, 10,000 people crowded its wide streets. Tall stone buildings lined those thoroughfares and three railroads—the Bullfrog & Goldfield, Tonopah & Tidewater, Las Vegas & Tonopah—

vied in offering service to the city from three directions. Rhyolite had everything a desert city could want—fine hotels, big stores, beautiful homes, imposing buildings to house its commercial and fraternal life, a railroad station that was one of the fanciest in the West, enough bars and casinos to provide a different locale for revelry every night of the month. Rhyolite was a big city teeming with big business and big plans. It had everything except an inexhaustible supply of gold.

The town died as suddenly as it had boomed. By 1910 only 675 people rattled about in the skeleton of its bigness. Today you may find a half-dozen inhabitants, but their town is worth seeing under the winter sun.

Walk or drive westerly from the still-imposing railroad station along Golden Street, that unequaled glowing main drag of 1907—and try to re-create Rhyolite from the gaunt two-story walls of the bank, or the naked portico of Porter Brothers Store. Visualize a city that gave that store \$150,000 in business each month! Go somewhat farther from the station and visit the curious shiny glass walls of the Bottle House, a relic of 1905 when bottles were more plentiful than wood for building materials.

There isn't too much more. A few structures, many fragments, much rubble. It has been decades since the last train whistle was heard here. But unlike most other boom towns, Rhyolite has left the pattern of its sprawling richness imprinted on the terrain. Climb just a little way up any of the surrounding hills and you can look down on the full grid of empty streets, as yet unclaimed by the desert. The city's whitening bones lay so long without final rites that their dusty decay created an indelible marker—the only true monument to Southern Nevada's first reigning community.

You'll find the able little town of Beatty—only two miles from Rhyolite—a pleasant stopover as well as a good place for rock-hounding and exploring. Beatty has gasoline, supplies and good motels and restaurants. It is on the main north-south Reno to Las Vegas highway. A morning's drive north on this highway takes you to Goldfield—the county seat ghost town that is well worth a visit.

The community of Henderson in southern Nevada holds its annual "Industrial Days" on April 21-24.—END

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S
C₂M NaF Na₂PO₄ PbO₂ Ba

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BUILD YOUR own (Unikit) combination camp table and stove carrying case, suitcase size closed; will seat four when opened. Send \$1, cash or money order for plans and details. c/o Chris' Letter Shop, 7562 San Fernando Road, Sun Valley, California.

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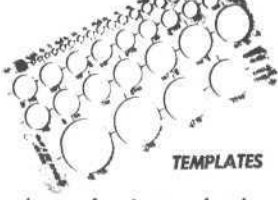
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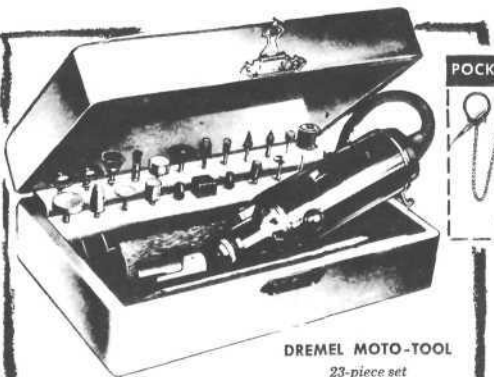
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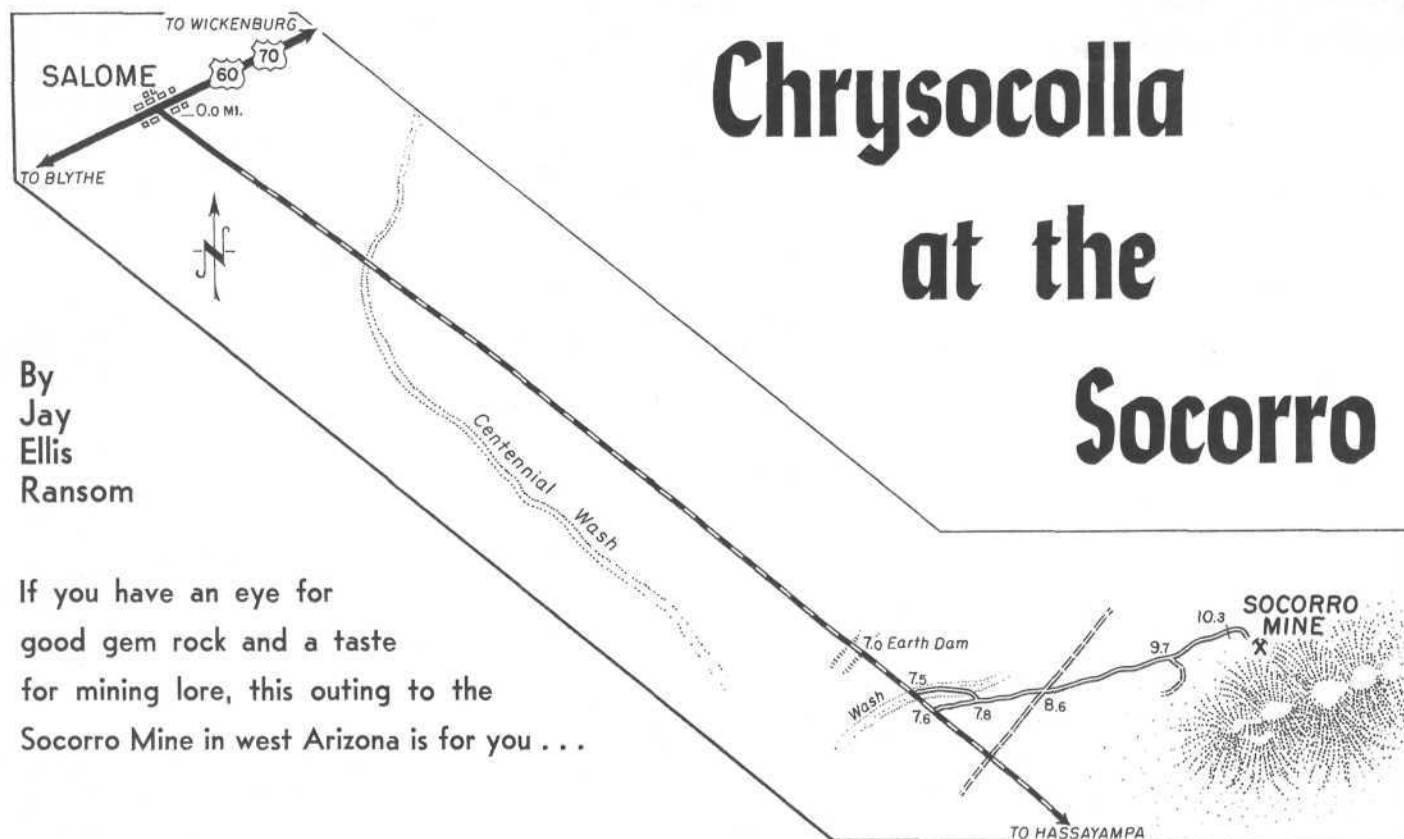
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Chrysocolla at the Socorro

By
Jay
Ellis
Ransom

If you have an eye for
good gem rock and a taste
for mining lore, this outing to the
Socorro Mine in west Arizona is for you . . .



FROM HIGH above Arizona's Socorro Gold Mine, 10.6 miles south-east of Salome, I looked down on the abandoned workings and millsite, then out across a nearly endless desert of saguaro cactus and ocotillo in flame-red bloom. I fancied that I could smell the brilliant golden-yellow paloverdes decked out in their spring finery far below me. Vagrant breezes, warm with sun and spiced by miles of desert blossoms, riffled an occasional patch of wildflowers.

The chrysocolla (a hydrous silicate of copper of a blue to green color, much esteemed by amateur gem collectors) that I had heard about through a succession of rumors scattered over many years, was here, all right. Fairly presentable specimens of good deep blue material, some with cutting quality "stringers" (veins of chrysocolla in the base rock), had been piled around a mesquite tree shading the locked front door of the only structure left standing in the "residential area" of the mine. And in the draws and gulches, chrysocolla float gave promise of outcrops that, with a little exploratory effort, might produce even better specimens.

Although the Harquahala Mountains south of Salome have been prospected and mined more for gold than copper, I had listened with keen interest to the many stories about the canyons and spines of this whole sprawling range

containing many lowgrade deposits of sky-blue chrysocolla.

Long before 1900, many gold mining areas were active in this rugged limestone uplift. Of course, however, small account was made. Chrysocolla is a secondary copper mineral, and the finest gemstone specimens come from the great Arizona copper mines of Bisbee, Miami and Globe.

Now, as I looked over the remnants of the once-famed Socorro Mine, I remembered what an old desert friend had once said about this region. Martin Koning, Morristown lapidary and rock collector, spent many years prospecting this chocolate-brown range. He found outcrops of top-quality chrysocolla, the best of which he "lost"—never being able to find his way back to them. From what Koning told me, better specimens are found farther back in the mountains. As a starter, at any rate, this old gold mine is easy of access and it does provide some obvious Western mining history to go along with the chrysocolla specimens.

It was while filling our water canisters and bag at the Richfield station in Salome that Gay and I became acquainted with one of the most pleasant and personable of desert young "old-timers" I ever met. John Brusco runs the station for his folks who virtually homesteaded this site when the late humorist Dick Wick Hall was making the nation laugh with his stories about

Salome, "where she danced." Just by chance, I had mentioned that I was looking for chrysocolla in the Harquahalas, and Brusco started talking a mile a minute about the many old mines he knows intimately.

John, it seems, has always been interested in old mines. Collecting their histories, along with ore, mineral specimens and gemstones, is his hobby. Between shifts at the station, he carries on his assessment work, makes side trips to distant mining areas, and collects specimens. He is easy to meet and to talk to, and welcomes visitors to share his years of accumulated rockhound wisdom. "There's some wonderful stuff back in the Harquahalas," he said.

John related how the Socorro Mine reached its heyday in 1908-09. The earliest miners and prospectors were reputed to have been driven out several times by renegade bands of Apaches who made their headquarters near Wickenburg, 60 miles east. After 1900, a water line was laid several miles across the desert from Nord's Ranch to the mine, and the Socorro's "rosy" years were at hand.

But, the inevitable followed: the gold veins played out. During the middle 1920s the machinery was scrapped and sold to Japan, with only a single residence, still habitable, remaining on the property. From time to time some hopeful prospector



ROUGH BUT PASSABLE ROAD LEADS TO MINE

moves into it, probably more to enjoy the peace and beauty of the lonely desert than with any real hope of finding gold left by the long departed.

Fall, winter and spring months are the best times to prospect western Arizona. We were fortunate in having come during a brilliant flowering season. All of the vegetation—including creosote bushes and cholla cacti—was in its spring dress, giving a softness to the landscape fronting the ragged mountains. This spring good rains mean an even more bountiful flower crop.

In and out among the various cacti, as if seeking nectar or insects, flew the state's official bird, the cactus wren. Largest of its species, this constantly curious bird is utterly fearless. Gray-brown, with white spotted breast and white splotches on throat and tail, these wrens wear a white line over their eyes. They chattered and scolded us incessantly as we walked about looking for gemstone float. They seemed to take shrewish pleasure in berating us for whatever we were doing that apparently irritated them.

As John Brusco had said, the mine residence gave every appearance of being occupied, even with a fairly new Studebaker sedan parked to one side. On closer inspection, we saw that no one had lived here for many years, and the automobile had no wheels. Soft drink bottles lay scattered everywhere. In accordance with our desert custom of not breaking into locked buildings—a practice too few outdoor devotees follow—we contented ourselves with looking over the grounds.

Surrounding the base of a nearly dead mesquite tree, presumably there to shade the front door, we found several hundred pounds of brilliant blue chrysocolla specimens, evidently brought in from the surrounding hills and draws for use as "garden stones."

Very little of the mine or mill is

left. On the dump we found ore specimens from the deeper workings. A shaft, dry as dust, angles down into the mountain, but I do not recommend that casual visitors follow it beyond the reach of sunlight.

Of greater interest are the truly enormous timbers that once supported the stamp mill. Beneath the mine dump a pile of smaller timbers had been gathered so long ago that wind and sun has turned them almost as black as charcoal. At the mill site itself we found the sawed-off bases of four of the biggest sticks of lumber I have seen south of the Pacific Northwest. Each mill support measured 24-inches square, and were bound in pairs. At one time, they must have supported a terrific tonnage of superstructure. One can only guess as to where such huge stanchions might have been cut, no doubt somewhere in Oregon or Washington. Brought by schooner to Los Angeles, they were hauled overland by wagon—a dozen mules to each stick—to their final installation in what was then, surely, a most desolate and remote corner of the Territory of Arizona.

Rockhound visitors will find all the chrysocolla they need in the outcrops back in the hills. Fairly good chrysocolla lies hidden in pockets and seams in the nearby draws and gulches. Despite a cable across the access road, this is all open country for the rock collector. It is lovely any time of year (except summer), but beautiful beyond dreams in the spring when a gentle breeze sighs over the green fertile desert. For those who love the desert, here is infinite peace, where the blueness of the sky has been caught and held captive forever in the veins and stringers of chrysocolla at one's feet.—END

Planning a trip in April? Here is a listing of some of the gem-mineral shows scheduled for this month:

April 2-3—Slover Gem and Mineral Society's third annual show at Lincoln School in Colton, Calif.

April 2-3—Puget Sound Gem and Mineral Club's show at the American Legion Hall on 10th Avenue S., Seattle, Wash.

April 23-24—Wichita, Kansas, Gem and Mineral Society's annual show at the East National Guard Armory.

April 23-24—Owyhee Gem and Mineral Society's annual show at the I.O.O.F. Hall in Caldwell, Idaho.

April 30-May 1—Tacoma, Wash., Agate Club's annual spring show at the South Park Community Center Building.

April 30-May 1—Yakima, Wash., Rock and Mineral Club's first show at the Yakima Armory.

April 30-May 1—8th annual San Joaquin Valley Gem and Mineral Show at the Agricultural Building at the County Fairgrounds, Stockton, Calif.

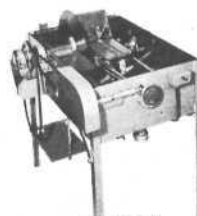
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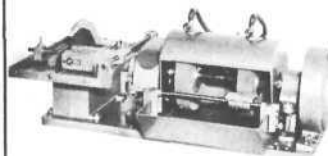


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By W. Thetford LeViness
P.O. Box 155, Santa Fe

EASTER WEEK end is the beginning of the summer tourist season in old New Mexico. All during Holy Week, Indians come into Santa Fe from the nearby pueblos, and spread their wares under the portal of the Palace of the Governors there. They'll go home at night and others may take their places the following day, but nonetheless this Indian market will continue through *fiesta-time*, over Labor Day week end.

On Easter Sunday, April 17 this year, there are Indian dances in just about all the pueblos. They are spring planting ceremonies—thanksgivings to the Great Spirit for the winter snows and rains, and supplications for bountiful crops. At Santo Domingo, south of Santa Fe, there is a children's corn dance Easter Sunday afternoon, with dances by the village adults for three days after.

If you are in New Mexico before Easter, you may witness—if you're lucky—the fast-disappearing Holy Week rites of the *Penitente* Brotherhood. Remnants of this lay group of Roman Catholics, all of Spanish descent, are still active in northern New Mexico and southern Colorado; they inhabit, generally speaking, the Sangre de Cristo mountain area north of U.S. 66.



A PENITENTE "MUERTE" ("FIGURE OF DEATH")

Their *moradas*, or chapels, may be seen in many isolated settlements. In Cordova, Rociada, and dozens of other picturesque adobe villages they hold their solemn processions at night from the *morada* to the church and back to the *morada*. The "crucifixions" for which they were once famous have died out, but a few members still whip themselves in public penance. Visitors are welcome at the processions and at any ritual held in a church. You must be careful not to offend, however — and you must not enter a *morada* unless invited.

State Routes 3, 10, 21, 38, 76, 94 and 105 all traverse "*Penitente* country." These roads are found east of U.S. 64 between Santa Fe and Taos, and north of U.S. 85 at Las Vegas. Spanish is still the dominant tongue throughout this region, and the remaining *Penitente* rituals are conducted in Spanish. Activities usually occur on Thursday and Friday of Holy Week. On Good Friday morning, a procession at Trampas reenacts the Biblical story of Jesus kissing his mother Mary on the way to Golgatha. At Talpa, a tiny *placita* near Taos, a "death car"—a two-wheeled vehicle with a skeleton-like figure of Death seated on it—is pulled about the village in procession. And at Cordova, *alabados* (hymns of praise) are sung at *Tieneblas* (Tenebrae) in the church that night. One by one the candles on the altar are extinguished, and male voices sing of the Saviour and His crucifixion. The sole accompaniment is a primitive doleful *pito* (flute). One hopes that this indigenous music of the *Penitentes* will endure for future generations.

Penitentes trace their history back through the *conquistadores* to humble beginnings in medieval Europe. There they had developed within the Third Order of St. Francis, a zealous laity dedicated to poverty and humility. Franciscans had long practiced mortification of the flesh — so, the laity among them adopted self-flogging—in spite of a papal bull against flagellant sects in 1349. Franciscan priests came to live in New Mexico's first European settlements. They converted the Indians of the area, and transplanted Franciscan fervor to these new Christian strongholds. Indians are believed to have taken up penitential flogging in these early days, but they do not seem to have continued with it for long.

This New World sect reached its peak after 1840, when Franciscans were expelled from New Mexico. Flagellation and the "crucifixions" were frequent and fanatic in local mountain fastnesses. Charles F. Lummis took pictures of these events at San Mateo, New Mexico, in 1888. In his book, *The Land of Poco Tiempo*, he said that "Cristos" were even nailed to the cross in that village in the Lenten season of 1887. Several cases of actual death on the cross have been reported from the various communities where *Penitentes* were active in the last century.

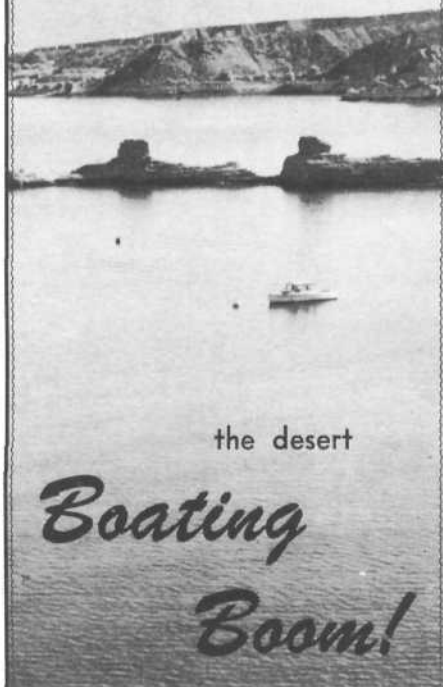
In 1947, Archbishop Edwin V. Byrne declared the *Penitentes* to be a recognized lay group within the See of Santa Fe. In exchange, leaders among them agreed to tone down many of the sect's extreme practices.

On April 19 the Old Timers' Day celebration takes place in Deming.—END

Coming . . .

in the

May Desert Magazine



the desert

Boating Boom!

Boating authority V. Lee Oertle describes a significant recreation trend in the Southwest: the boating boom! An article for folks who are seeking practical advice prior to joining the "desert skipper" fraternity.

PLUS

The Lost Wilson Silver Mine

One of the great mysteries of Mojave Desert mining is analysed by Harold Weight, America's leading lost mine authority. "Quartz" Wilson found the horn-silver bonanza in the vicinity of the Providence and Old Woman mountains . . . country worth exploring even if you have not as yet caught lost mine "fever."

A Visit to the Hopi

Laura Armer continues her account of life in the Four Corners Country in the 1920s.

And many other desert articles of lasting interest . . .



By RANDALL HENDERSON

AS THIS IS written, late in February, the prospects still look good for a profuse display of desert wildflowers over much of the desert this season. In fact the purple sand verbena already carpets the ground in some places. Elsewhere the sand is green with sprouts that will be blossoming in March and April.

The late Dr. Maris Harvey of the U. S. Department of Agriculture who often was my companion on desert hikes, once told me how it is possible for a heavy winter rainfall after many successive years of drouth to bring a gorgeous flowering season to fruition. It seems that the Creator in His infinite wisdom endows a portion of the seeds with a thick shell for delayed germination. Dr. Harvey used the cocklebur as an illustration. Generally the pod has two seeds, one of which will germinate the next season—if there is sufficient rainfall—and the other will remain in the ground for two or three or more years regardless of rainfall. The smaller of the two seeds has a shell that is impervious to both moisture and oxygen. It will not germinate until the elements have destroyed the water and airtight hull—and that may take years.

Thus the perpetuation of the species is assured. On the desert where moisture is an uncertain element, a large percentage of the seeds are created for delayed germination. And so the weather gods may go ahead with their fickle pranks. There'll always be seeds in the desert sands awaiting the time when conditions are right for the life germ to start a new cycle.

* * *

A correspondent has sent me a newspaper clipping in which it is reported that a service club in one of the California communities is gathering desert tortoises from their native habitat and sending them away to become pets for small boys. It seems there are lads who are allergic to the fur and feathers of other types of pets—and hairless reptiles solve the problem.

With due regard for the kindly intentions of the men in the service club, I would like to suggest that their project is a further threat to the survival of one of the most whimsical and harmless creatures in the desert wildlife family. The desert tortoise has only a limited habitat. Actually it is one of the few surviving descendants of the prehistoric reptilian age and holds a special place of interest in the scientific world. During the 40-odd years I have been tramping the desert I have noted its numbers gradually decrease—due to the depredations of thoughtless human beings.

The State of California has given some degree of protection to the desert tortoise by prohibiting the sale and

purchase of the reptiles. Beyond that point the preservation of this creature from complete extinction depends on the interest you and I have in its survival.

Some day I am sure the story of evolution on this earth will be taught from the third grade through high school. When that day comes—when folks understand the origin and continuity of life of this earth, and the relationship of all living things and their dependence on each other—the kind of trophy hunting which despoils the land of its fascinating rarities will become a lost vice.

* * *

One of the most contented men I ever knew was an old prospector who for many years lived alone in a well-kept cabin in the Chocolate Mountains of California. Once a month he and his burro made the trek to the little store at Ogilby for supplies—paying for them from a flask of gold dust and tiny nuggets he had panned from the wash near his cabin.

His philosophy was simple: "You make yourself rich by making your wants few. Human beings have relatively few essential needs, and these are easily filled. It is in solitude—in communion with the natural things of this earth that man attains the ultimate in peace and happiness."

I would not suggest that one has to be a recluse to find peace and happiness, but I am sure that one of the tests of maturity is to be able to live alone and enjoy the companionship of self.

* * *

Many of us are looking forward hopefully to the decision of Congress involving the fate of the proposed Great Basin National Park. If authorized, this will be Nevada's first national park—and without doubt it will become one of the West's most popular recreational areas in the years ahead. Within its boundaries are the rugged Wheeler Peaks, and the Lehman Caves which are now a national monument.

The Senate Interior Committee held hearings in Ely, Nevada, in December. Senator Alan Bible and many of the civic groups in the state are backing the proposal. But there is opposition, from the cattle and mining interests and some of the fish and game organizations. It is the old conflict between public interest and private interest. It would be a tragic thing for future generations of Americans if the acquisitive and predatory pursuits of selfish men in these days of depleting natural resources were not under constant restraint by those more altruistic persons whom we know as conservationists.

The National Park Service's Ruins Stabilization Mobile Unit --TO THE RESCUE

When one of the Southwest's prehistoric ruins needs a "face-lifting," the call goes out for the Stabilization Unit and its Navajo crewmen

By EDNA RICHERT

WHEN A VENTURESOME party of visitors arrived on horseback at Keet Seel—one of the famous Indian ruins in Navajo National Monument—they considered it their good fortune to find the Ruins Stabilization Mobile Unit in action. Watching present-day Indians working with mud mortar on these ancient walls so inspired the imagination of one lady visitor that she told me she could almost believe she was intruding upon the original inhabitants of seven centuries ago.

The Mobile Unit—a unique program of the National Park Service—specializes in preserving prehistoric ruins in the National Monuments of Arizona and New Mexico. They work to minimize deterioration and preserve as long as possible these architectural remains—in a manner that is unobtrusive to the prehistoric atmosphere.



NAVAJO PACKERS PREPARE FOR THE 11-MILE TREK TO KEET SEEL



STABILIZATION UNIT CREWMEMBERS REPAIR WALLS OF KEET SEEL WITH MUD MORTAR

Supervised by my husband, Archeologist Roland Richert, from the Southwestern Archeological Center near Globe, Arizona, the Unit includes a trained and experienced crew of Navajo Indians from the vicinity of Chaco Canyon National Monument—former headquarters of the Unit. They migrate approximately six months of every year from southern desert areas in winter to the higher plateaus in summer.

Actually the Navajo labor is the key to the Mobile Unit's success. The crew members, with their tents and cooking paraphernalia, are completely at home in the outdoors. Being family men they like to have their kinfolk with them, so often our gypsy band includes women and children. The Mobile Unit seldom has trouble assembling a full crew, for the Navajos love to travel!

Archeologists, who are born with a touch of explorer in their system, find this gratifying work. And since I have a real enjoyment for travel, I relish the experiences that are daily fare on these back country trips.

The Mobile Unit's recent job in

Navajo National Monument was a typical one. Access to Keet Seel is not easy. Following a narrow twisting channel of mud, water and quicksand, the 11-mile trek to the ruin was made by pack-train. Though our trip was successfully negotiated before nightfall, the crew was considerably dampened by a sudden drenching rain. This, the Navajos among us insisted, was due to the Mobile Unit's invasion—we had disturbed the *Anasazi*, spirits of the Ancient Ones. And when several of the Navajos developed sore throats doubtless this was due to the fact that a coyote had watered at the spring!

Camp was pitched immediately below the ruin, which is scaled by a 40-foot ladder. Next morning the entire ruin was carefully examined. Then the sound of trowels and shovels of the crew and the crunch and rumble of a cement mixer echoed through the magnificent canyonside setting. All loose stones were reset in soil mortar, duplicating the original. New mortar comes from disintegrated sandstone in front of the refuse on the floor of the canyon below the cave. When mixed with water it becomes literally as hard as the rock itself. The work at Keet Seel consisted primarily of shoring up wall foundations based on deep refuse which had been slipping down the two main terraces.

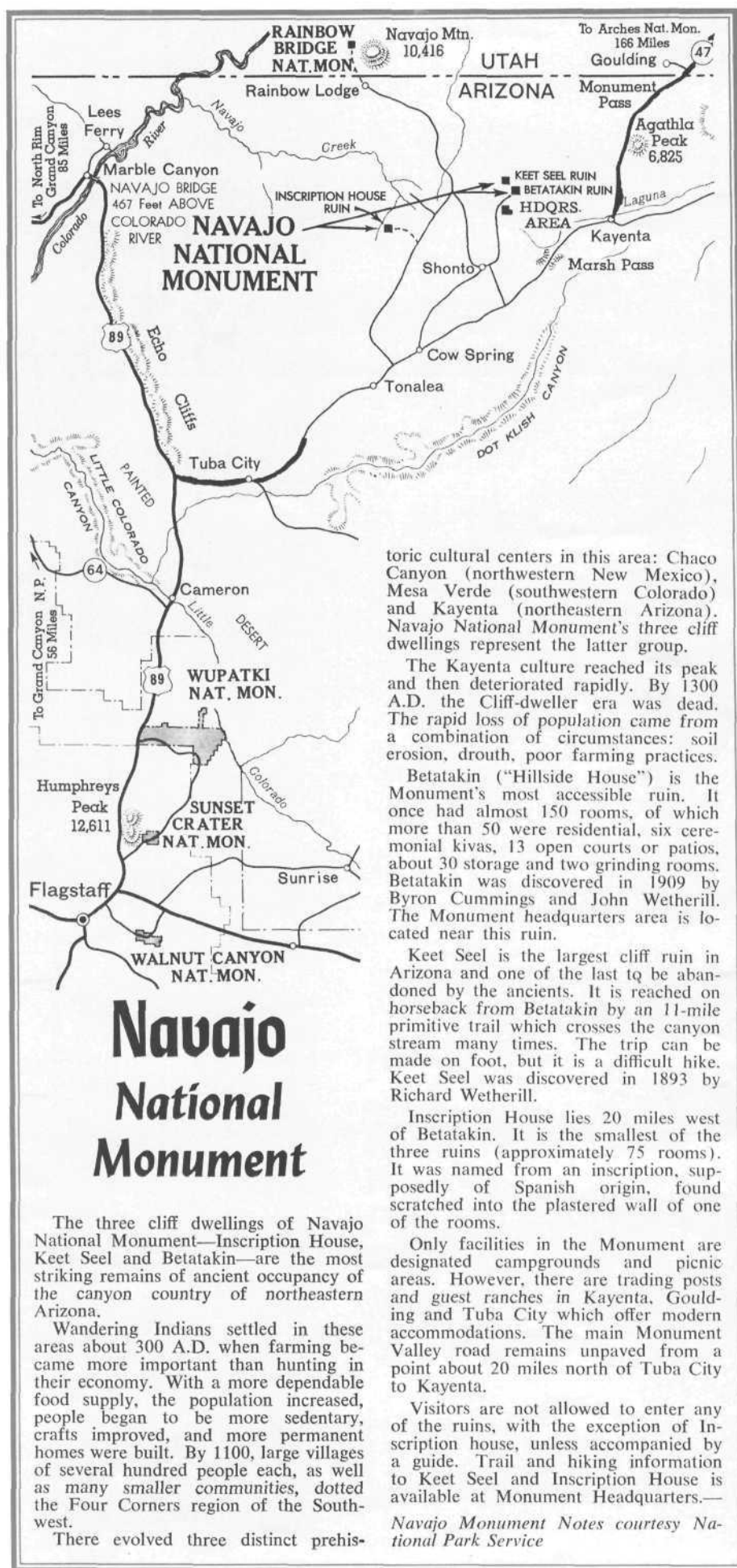
The entire central section of one wall of a prehistoric alley-way was dismantled and reset because of a large hole that had developed in the floor adjacent to the wall. Pressure and impact of visitor travel would have caused complete collapse in time.

Archeologists believe the original timbered ceilings plastered with mud will stand indefinitely, so long as neither traffic nor rockslides damage the roof-tops.

It is understandable that the Navajos were pleased to see the completion of this project—the spirit of the *Anasazi* is still too much in this isolated canyon.

However, stabilization is a never-ending project. And the problems are enormous, entailing a prodigious amount of travel, time and labor with seemingly endless amounts of photographs and reports.

This past season the Navajo crew under the direction of Archeologist Joel Shiner, my husband's assistant, gave the ruins of Chaco Canyon a face lifting. A project at Montezuma Castle National Monument will presently be underway—stabilizing a pit-house, a much earlier type of dwelling than the Castle. This will be an additional attraction for visitors who arrive to take a peep into the past.—END



toric cultural centers in this area: Chaco Canyon (northwestern New Mexico), Mesa Verde (southwestern Colorado) and Kayenta (northeastern Arizona). Navajo National Monument's three cliff dwellings represent the latter group.

The Kayenta culture reached its peak and then deteriorated rapidly. By 1300 A.D. the Cliff-dweller era was dead. The rapid loss of population came from a combination of circumstances: soil erosion, drouth, poor farming practices.

Betatakin ("Hillside House") is the Monument's most accessible ruin. It once had almost 150 rooms, of which more than 50 were residential, six ceremonial kivas, 13 open courts or patios, about 30 storage and two grinding rooms. Betatakin was discovered in 1909 by Byron Cummings and John Wetherill. The Monument headquarters area is located near this ruin.

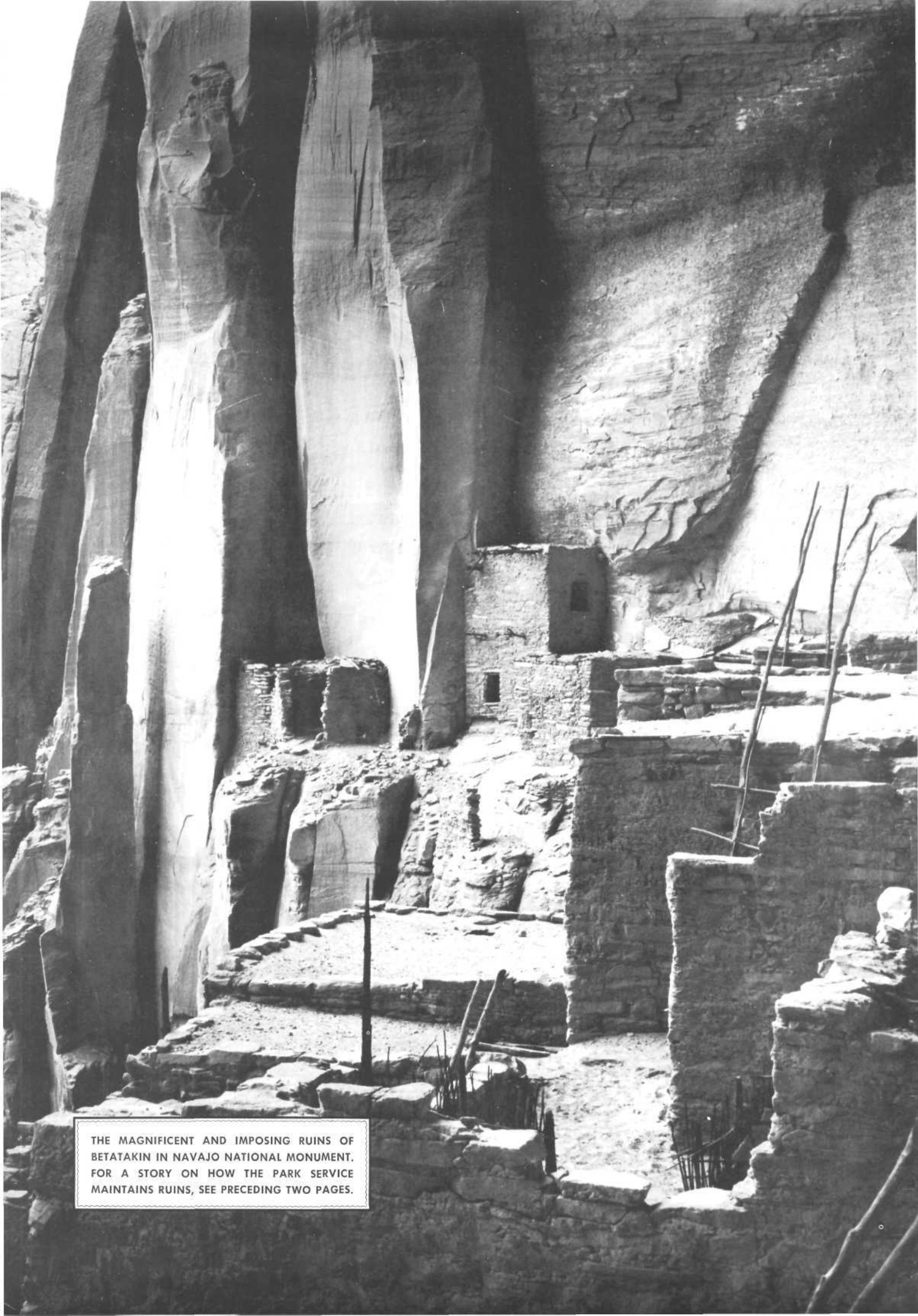
Keet Seel is the largest cliff ruin in Arizona and one of the last to be abandoned by the ancients. It is reached on horseback from Betatakin by an 11-mile primitive trail which crosses the canyon stream many times. The trip can be made on foot, but it is a difficult hike. Keet Seel was discovered in 1893 by Richard Wetherill.

Inscription House lies 20 miles west of Betatakin. It is the smallest of the three ruins (approximately 75 rooms). It was named from an inscription, supposedly of Spanish origin, found scratched into the plastered wall of one of the rooms.

Only facilities in the Monument are designated campgrounds and picnic areas. However, there are trading posts and guest ranches in Kayenta, Goulding and Tuba City which offer modern accommodations. The main Monument Valley road remains unpaved from a point about 20 miles north of Tuba City to Kayenta.

Visitors are not allowed to enter any of the ruins, with the exception of Inscription house, unless accompanied by a guide. Trail and hiking information to Keet Seel and Inscription House is available at Monument Headquarters.—

Navajo Monument Notes courtesy National Park Service



THE MAGNIFICENT AND IMPOSING RUINS OF BETATAKIN IN NAVAJO NATIONAL MONUMENT. FOR A STORY ON HOW THE PARK SERVICE MAINTAINS RUINS, SEE PRECEDING TWO PAGES.